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CONTENTS

		PAGE
Foreword	*Douglas C. Ridgley*	257
Geography in the Schools of a Democracy	*W. Elmer Ekblaw*	259
The Social Studies in the Junior High School	*Howard E. Wilson*	263
Geography and International Relations	*Daniel A. Prescott*	268
Geography Teaching in England	*Ernest Young*	273
Preparation of Geography Teachers	*George J. Miller*	277
Some Opinions of Specialists in Education Relative to the Place of Geography in the Social Studies	*Carl J. Blomfield*	281
The Evolution of Geography as a High School Subject	*Alice Foster*	286
Political Geography: A Complex Aspect of Geography	*Derwent Whittlesey*	293
Geography in the Reading Museum and Art Gallery	*Josephine Moyer*	299
Floating University Round the World Voyages	*James E. Lough*	304
A Scoring Plan for Elementary Geography Texts	*William M. Gregory*	307
Textbooks in Geography		314
A Notable Achievement in Health Education	*Frederick Rand Rogers*	317
New Educational Books		320

Indexed in the Readers' Guide and in the Education Index

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EDUCATION

Vol. LV JANUARY, 1935 No. 5

FOREWORD

Douglas C. Ridgley
CLARK UNIVERSITY

AMONG the contributors to the Geography Number of Education are specialists in the field of Geography, specialists in the broader field of education, the classroom teacher, and the university student.

Dr. Ekblaw sounds no uncertain call for the study of modern geography in the schools as a preparation for citizenship in a democracy. His extensive study of Europe and his wide travel give an appreciation of the educational needs in countries whose progress must be based on instruction which shall include a knowledge of the lands and the peoples of the world.

Dr. Wilson analyses the function of social studies in the junior high school and offers a suggestive program for geography, history, and civics during three years of the junior high school program. Dr. Wilson has made a notable contribution to educational literature in *The Fusion of Social Studies in Junior High Schools: A Critical Analysis,* Harvard University Press, 1933.

Dr. Prescott shows how geography can function in developing a wholesome understanding of the various peoples of the world and the necessity of coöperation among them. Dr. Prescott spent two years in investigating educational systems of Europe to learn how European schools give instruction to develop international understanding. The results of this study are published by Harvard University Press in a volume entitled *Education and International Relations.*

Mr. Young interprets geography in the schools of England, from the vantage point of wide experience as headmaster of secondary schools and as secretary of higher education. He has traveled in many lands and has written textbooks and magazine articles in geography.

Professor Miller emphasizes the need of selecting teachers trained in geography as special teachers of geography, and the necessity of all teachers in training being given instruction in geography as a preparation for teaching in any grade. Professor Miller has served as chairman of a committee that made an extensive survey of teacher training problems in geography. His long and efficient service as Editor of the Journal of Geography has kept him in close touch with the needs of geography teachers.

Mr. Blomfield brings together

widely scattered statements from ten writers concerning the place of geography in the social studies. The article was prepared by Mr. Blomfield while working as a graduate student at Clark University.

Miss Foster traces the history of geography in American secondary schools from its first appearance in the high school curriculum to the present time. Her wide experience as an instructor in geography in high school and college enables her to treat the present trends in high school geography from first-hand knowledge and observation.

Dr. Whittlesey analyzes the problems of political geography and shows how attention may be focused on the interpretation of political areas, their boundaries, capitals, and other critical points and zones. Dr. Whittlesey's researches in history as well as in geography enable him to present the complex aspects of this phase of geography.

Miss Moyer describes how the city of Reading, Pennsylvania, has provided visual instruction for the schools of the city, through a museum built and maintained by the Board of Education for school instruction.

Dr. Lough presents a brief review of the educational advantages offered by travel for university study under the direction of experienced instructors. His outstanding achievement in the field of educational travel was the organization of the "Floating University," with a chartered ship as a campus and a voyage of forty thousand miles during the regular college year.

Professor Gregory presents a plan for evaluating geography textbooks objectively. An examination of his method reveals the completeness with which he has analyzed geography textbooks. The method is applicable for use in scoring textbooks in other subjects.

The list of textbooks in geography comprises books suitable for use from third grade through the college and university.

GEOGRAPHY IN THE SCHOOLS OF A DEMOCRACY

W. Elmer Ekblaw
CLARK UNIVERSITY

Dr. Ekblaw is Professor of Geography at Clark University and Assistant Editor of "Economic Geography." He received his Ph.D. from Clark, and his A.M. and his A.B. from the University of Illinois, where he was a member of the faculty of the College of Science before he came to Clark in 1924. His field is agricultural geography and land utilization.

THE gratifying increase of interest in the field and subject matter of geography in America since the World War indicates the growing need for its discipline and for the application of its principles and philosophy to the solution of the problems that our country, as one of the foremost examples of democracy in government, faces in maintaining its democratic system of government, and expanding it to satisfy the growing cultural needs of an enlightened people. Essential to the progress of any type of government, as are most of the facts and principles in a republic they become vital to any advance in culture.

Sound government "of the people, by the people, for the people" involves as full an appreciation of the basic facts of environment — physical, biological, and cultural; all resources, and their distribution and availability; the number, attributes, and activities of the people — as the knowledge of the time permits. The adjustment of plans and programs for the enrichment of man's living, for his greater cooperation toward the common weal, rests upon the most careful appraisal of the conditions and materials at hand. Only when a substantial majority of the people realize their opportunities as well as their obligations, their strength as well as their weakness, their advantages as well as their limitations, so far as their land is concerned, is a nation able to plan wisely, to share with the rest of the nations of the world the goodly inheritance that is theirs.

To achieve this knowledge, this understanding, our people must be more fully trained in geography, made better acquainted than they have been heretofore with the world in which they live, not only their immediate bailiwick or the narrow strips of territory through which they may have traveled, but the many distinctive regions beyond the purviews of their personal experience.

Children learn first and most effectively by direct contact with their own neighborhood and through their own experiences; and only as they mature can they make a vital part of themselves the knowledge that lies without this experience. The richer and more comprehensive their knowledge of their home environment and the distribution, character, and utilization of its resources, the better is their basis for appraising the significance of alien regions with which they become directly acquainted by travel, or indirectly through reading and study. The growth of the appreciation of geography depends as much upon the expansion of the mental horizon with maturity, as by the expansion of the factual horizon with study; the adjust-

ment of geographic training to the broader view and greater capacity of the growing child entails a continuous program from the grades to the college.

The able citizen of an enlightened democracy must have been adequately and purposefully prepared for his responsibilities in government from childhood on, by a logical sequence of geographic and historical training that leads to the expansion of his cultural horizon as well. In the grades he must learn the fundamental facts and relationships of his own locality; how to interpret them in the light of the past, and to translate them into criteria for his own activities and the activities of his people. But if he were to go no further he would remain partisan and provincial, receive no stimulus from the study of the country and culture of other lands. As he grows and his interests break the bounds of his own personal experience, he must be led farther and farther afield, regionally, factually, and philosophically, until he may embrace in his thinking, and vicariously in his experience, the world and all its peoples, and see them as far as his innate ability permits, as part of his own milieu. Whatever geography may be defined as being, its mission must be this areal expansion of appreciation and sympathy.

It goes without saying that never before in the history of the world has there been so stern necessity for such appreciation and sympathy, and consequently for the means of attaining them. The borders of the world have been so drawn in, and distance so reduced, that all men have become interdependent as next-door neighbors. The closer neighbors they become, the more they can help each other just as they are the more likely to chafe against one another. They must work together either in peace and consideration for one another, or they will quarrel and destroy one another. The opportunity for realizing the idealism of democracy, the equality and fraternity of all men, has become immeasurably enlarged, but in the same degree the peril of unsympathetic intimacy is emphasized. The necessity both for a fuller and more considerate cooperation and for a more careful avoidance of antagonism and rancor, has never been greater than it has become in this period of easy and rapid travel, transport, and communication.

It is significant that the geographers of the world decry the rising tide of narrow nationalism and plead for a broader internationalism. They recognize, as historians and scientists likewise do, that while a nation may become and remain sufficient unto itself, by so doing it closes to itself, and in slighter measure to all the others, the door for happy and vitalizing interchange of wares, ideas, and ideals.

The nationalism of Fascism as exemplified in some countries, and of Communism as in others, has little need of geography in its program, but democracy like that of northwestern Europe and America cannot thrive or radiate its idealism except upon a sound basis of widespread geographic knowledge and understanding. With the State, as represented by its dictators, thinking for the people, making all the plans, formulating all the policies, directing all the achievements for the whole citizenry, there is no need

for the people to know of anything beyond the borders of their own state —nothing either within or without concerns them individually.

It is not necessary for the hundreds of millions of Russians to know that most of their land lies north of the fiftieth parallel, that almost half lies north of the sixtieth parallel, and that consequent short growing season, low rays of summer sun, and podsolic soils impose inexorable limitations upon their activities that they cannot economically transcend; or that despite their long coast line, their access to the sea is confined to practically three small outlets all more than a thousand miles from the steamer lanes of the open Atlantic, and that as a result their program for commercial and naval expansion is jeoparded, and their culture retarded because they are denied the stimulating contacts with other cultures that sea trade makes possible; or that their intermediate position between the two great civilizations of the world, the oriental of the monsoon lands and the occidental of the Mediterranean and prevailing westerlies, and between the two great racial groups of the world, the yellow on the East and the white on the West, has given them a hybrid culture and mixed blood on a vast scale; or that almost or quite three-fourths their population is necessarily concentrated upon much less than one-fourth of their great area, into a triangle representing the eastward penetration of the beneficent influence of the Gulf Drift into the land mass of Eurasia, and that the bounds of this triangle cannot be appreciably extended. It is even better for the program of their rulers that the people as a whole know none of these things, and that they cannot realize the wellnigh super-human task they have undertaken.

No longer is it necessary, nor is it wise from the viewpoint of their dictators, for the Germans or Italians, for example, to recognize the difficulties or geographic limitations imposed by the environment upon the activities and programs their dictators have designed. The State has undertaken this responsibility for them, and they have no further concern for advantages or disadvantages, resources or their lack, the advance or delay of culture.

On the other hand in Holland, Scandinavia including Finland, the British Isles, and elsewhere in northwestern Europe and in America, where democracy has most effectively promoted the culture of the people, and where every activity, every program, every policy of the nation, must be their will, every citizen must know both his geography that he may have knowledge of present conditions, and his history that he may judge them in the light of past experience over many centuries, rather than merely his own.

Unfortunately America, because of the very richness of its resources, and the almost incredible advantages of its physical conditions, has not been impelled to an exhaustive inventory of its national assets and liabilities, and consequently has not felt the need of the knowledge that geography only can provide. Until very recently the development of geography as a cultural element in our school curricula has been well-nigh neglected, its practical value in our social and economic structure has been ignored, and its

significance in broadening the sympathies and clarifying the vision of a democratic citizenry has been quite lost. In the present projects of economic planning, promotion of friendly foreign trade and cooperation, and revision of our social and political institutions, a knowledge of the facts and principles of geography are indispensable; and unless our schools give our children the fundamental knowledge upon which they may specialize as they mature, the future is fraught with grave possibilities of disorder and confusion.

In a democracy the fullest and freest opportunity for the inculcation of truth should be possible. There should be no such widespread dissemination of untruth as characterizes the present propaganda in Germany of the so-called Aryan myth of racial purity and superiority; or of similar untruth in the inherent right of Italy to Rome's grandeur, as forms the ideal of Italian Fascism; or of different, but equally misleading doctrine put forth by the Communists that by industrialization Russia may raise herself to the same standard of living as that of western Europe and America. Only by frankly facing facts as they are most clearly revealed in each successive step toward culture, only by a faithful search for truth, wherever it may lead them, may people progress — and progress, not the stagnation of stability, must ever be the goal and strength of democracy.

The fundamental knowledge of the physical conditions and the resources of a land are necessary to the progress of any people, and in a democracy this knowledge must be free to all. The discipline and material of geography should be everywhere a part of the educational preparation for citizenship.

THE SOCIAL STUDIES IN THE JUNIOR HIGH SCHOOL

HOWARD E. WILSON
HARVARD UNIVERSITY

Dr. Wilson graduated from the University of Chicago, had two years of public school teaching in the state of Wisconsin, taught for a time at the University of Chicago High School, and in the fall of 1928 went to the Harvard Graduate School of Education. His work is primarily that of teaching teachers of the social studies. His publications include: a Laboratory Manual in American History; a Workbook in United States History for junior high schools; Mary McDowell, Neighbor, a biography of the Chicago social service worker; The Fusion of Social Studies in Junior High Schools; and, in collaboration with Carl Russell Fish, a history of the United States for senior high schools, published this year. For the current year, Dr. Wilson is president of the National Council for the Social Studies.

THE social studies in the junior high school, in order to be seen in their best educational character, must be seen from three points of view. In the first place they are to be regarded as a sequence of ideas, a series of generalized concepts which are at once the objectives of the social studies in general education and the focal points in the organization of subject-matter for teaching purposes. In the second place, they are to be considered as bodies of subject content, bundles of information, brought together to serve as the raw materials of study, through contact with which the pupils may grasp the idea-objectives. In the third place, the social studies in the junior high school may be regarded as a series of activities or enterprises—things to do with the subject matter for the sake of comprehending the objectives. Only by regarding the social studies in these three forms, and by carefully controlling the relations which exist between ideas, information, and activities can an adequate program in social studies be outlined.

The Social Studies as Ideas: The primary purpose of the social studies in the years of general education is that of building into the pupil a series of understandings which will constitute a vital part of his working philosophy of life. These understandings or concepts are the drives behind behavior. They are a sort of dynamic residuum of really effective instruction in social studies. As insights into the nature and meaning of human experience, they shape the pupils' viewpoint toward society.

Pupils may study many facts about the foreign relations of the United States, but unless they co-relate those facts into the comprehension that "the United States has become a world power" their study has stopped short of its mark. Study of the westward movement should lead to generalizations about the influence of the frontier on American life and the effect of geographic conditions on American development. The study of geographical data should give the pupil guiding concepts about the influence of geographical environment on human living.

Ideas, then, must be what we strive to teach. Not that they are the only objectives — pupils must also memorize some information and receive training in a variety of skills! — but

that they are the most important aims, without which our teaching of social studies has fallen short of its proper aims. But there are innumerable ideas in the field of the social sciences, and we are at once faced with the problem of selection. School time for social studies is limited; we must select and teach only those ideas which are most worth while. There are three criteria against which curriculum-ideas must be evaluated, three questions which must be asked about each social-studies concept. Is the idea sound from the point of view of scholarship? Is the idea one which is applicable to current and emerging life? Is the idea within the grasp of the pupils for whom it is intended?

If mere propaganda in social affairs is to be avoided, there must be insistence on the first criterion, that of scholarship. Accuracy of the generalization—accuracy from the point of view of those who have studied it most deeply! — is essential. In all probability such accuracy is best determined by the specialist, by the historian, or geographer, or political scientist, or sociologist, rather than by the generalist who has only a smattering of many fields or who is absorbed in current events. The ideas which are soundest are those of the scholars. The ideas nearest truth are the fruits of specialized research.

There are some wholly accurate generalizations, however, which ought not to become focal points of a selective curriculum because they are too remote from current life. History is not to be taught for history's sake or geography for geography's sake. Each of those specializations furnishes concepts which are valuable because they have real bearing on the life of today and tomorrow. Ideas most worth teaching probably transcend immediate time and place, but they nevertheless have a vital connection with that time and place. The student of society must cooperate with the specialist in analyzing the present and in discerning trends. The teacher must ask himself at every step, not only Am I teaching ideas? and Are the ideas true? but also Are these ideas likely to be useful to pupils participating in life's manifold activities and problems?

The pupil, too, must be considered. Little need to try to teach ideas, no matter how accurate and useful, to pupils unable to comprehend them. A concept teachable at grade IV is not suitable at the grade XII level. The idea grasped by the duller pupil in junior high school may not be in the least challenging to his brighter classmate. The educability of the pupils, with whatever devices of grade placement and homogeneous grouping the school uses, must be considered when selecting the ideas which are to be taught. A basic clue to the continuous problem of motivation lies in the careful adjustment of ideas to the interests, capacities, and level of maturity of pupils.

This is not the proper place to list the concepts which should animate the social studies in the junior high school. Each school must, within limits, make its own formulation of such concepts. Generally speaking, however, it would seem that the criteria suggested above can be satisfied by a series of concepts from the field of human geography in grade VII, from American history in grade VIII,

and from social civics in grade IX. In grade VII it seems desirable, first, to give pupils a series of understandings about the effect of various geographical factors (such as land forms, river systems, climate, etc.) on human life, and to end the year with generalizations about politico-industrial geography, such as may arise from the study of the British Commonwealth of Nations, Germany, and so on.[1] In grade VIII a series of topics is needed such as have been developed in the course in United States history in the University High School, University of Chicago.[2] In grade IX a revision of the usual topics is badly needed, with increased attention given to the development of ideas about city and community planning, about the consumer's place in our economy, and about a realistic approach to the management of public affairs. Only by equipping pupils with a series of concepts about these and related fields can we hope to have social studies function adequately in the junior high school. The first task of the social studies department is to formulate the concepts or ideas it desires to teach. The social studies program is a sequence of ideas.

The Social Studies as Information: In the second place, the social-studies program in the junior high school is obviously a body of subject matter, an accumulation of factual data. There is no antagonism, however, between the social studies as ideas and the social studies as information. The two aspects of the social studies are complementary to one another. Ideas which are worth while are never divorced from a factual foundation. Subject matter is the assimilative material through study of which concepts are gained. Too frequently our courses of study are only outlines of raw material, with the implication that the material is an end in itself. Effective education, however, should have no more patience with information separate from interpretative concepts than it should have for concepts not grounded and exemplified in information.

The curriculum-maker should have first of all a list of concepts to be taught, and should then select such items of subject matter as seem most useful in making pupils comprehend the concepts. In a topic dealing with Roman history, for example, not all the material on Rome can be presented; that subject matter which is most pertinent to the concept about Rome, which is the objective, should be selected. Items of information, dull or interesting in themselves, which do not have a direct bearing on the central understanding involved should be omitted. It is folly to try to teach any full amount of the known information about United States history in grade VIII, or to teach all the data about human geography in grade VII. Rigorous selection of materials is essential in all courses, and the basis of selection advocated here is the intimacy of the relation the item of fact bears to the central ideas which the course attempts to demonstrate.

The social studies are infinitely large bodies of information. The

1 See Wilson, Howard E. "The Fusion of Social Studies in Junior High Schools: A Critical Analysis." Cambridge: Harvard University Press, 1933. Pp. 175 ff.

2 See Robert E. Keohane and Howard C. Hill. "The Social-Studies Curriculum in the University of Chicago Laboratory Schools." Fourth Yearbook, National Council for the Social Studies. Philadelphia: McKinley Publishing Company, 1934. Pp. 176-193.

course of study in the social studies is composed of selected aspects of that information organized, for teaching purposes, *in focus on* the ideas which the social studies are trying to teach. This is but another way of saying that, in their informational side, the social studies in the schools may be regarded as a series of units. A unit is a body of subject matter, every item of which is focused on a central core of thought.[3] Unit-organization of subject-matter requires (1) that only such information will go into a course as seems to be useful in teaching selected ideas, and (2) that the selected information will be organized around the ideas for greater ease of teaching. Subject matter in units is focused; subject matter catalogued in encyclopedic fashion is not in focus, at least not for the purposes of general education.

The social studies in the junior high school, then should be regarded as a series of units. The units are the real clue to what is taught, not the labels which are attached to a semester's or a year's course. As has been pointed out earlier, it is impossible to say, in blanket terms, what these units should be. The following list of unit titles, however, may be suggestive. They are at least typical of the kinds of units of which the course should be comprised.

Grade VII —

1. Man's Relation to Location.
2. How Land Forms Affect Human Life.
3. How Bodies of Water Affect Our Ways of Living.
4. How Soils and Minerals Affect Our Ways of Living.
5. How Climate Affects Our Ways of Living.
6. The British Commonwealth of Nations.
7. The Union of Soviet Republics.
8. China or Japan.
9. France or Germany.
10. Latin America.

Grade VIII —

11. Geographical Setting of the United States.
12. How European Peoples Occupy North America.
13. How the United States Was Established.
14. How the Industrial Revolution Changed Our Ways of Living.
15. How Sectional Disunion Was Avoided.
16. How "Big Business" Has Developed in the United States.
17. How Americans Have Developed an Art and Literature.
18. The Rise of the Sciences in America.
19. How Politics Have Been Managed in the United States.
20. How the United States Associates with Other Nations.

Grade IX —

21. Interdependence in the Modern World.
22. How Groups Are Organized and Managed.
23. The Local Community.
24. The Work of the State.
25. The Nation at Work.
26. Law and Law Enforcement.
27. Working for the Government.

3 See Reudiger, W. C. "The Learning Unit." School Review, XL, 3 (March, 1932), 176-181.
Billett, Roy O. "Plans Characterized by the Unit Assignment." School Review, XL, 9 (November, 1932), 653-668; and
Wilson, Howard E. "The 'Unit' in the Social Studies." Junior-Senior High School Clearing House, IX, 1 (September, 1934), 24-32.

28. Earning Our Own Living.
29. Public Opinion.
30. Group Planning.

If each of these unit titles were outlined in detail a picture of the subject matter of a possible course of study would be presented. And, of course, if the core of thought behind each title were stated, we should have a list of the concepts we seek to teach.

The Social Studies as Activities: Much has been written in recent years about activity in the learning process. The dictum that "pupils learn by doing" has been carried to unwise extremes in many schools, but it is nevertheless true that there is much of educational significance in the statement. From one point of view, a curriculum in social studies is a *set of experiences* for pupils, a series of activities which are at least provokers and promoters of learning. What the pupil does with and about the subject matter is likely to determine what that subject matter does to him.[4]

What to the pupil is an activity is, from the teacher's point of view, an assignment. There are many of these assignment-activities for use in social-studies classes. In selecting those most useful and effective for studying a given unit of work, teacher and class should work cooperatively. At the beginning of a unit, two or three days may well be given to consideration of the question: What "things to do" are likely to be most effective in helping us to master this unit? Naturally, the teacher has most to contribute to such discussion, but the opinions and interests of pupils must be considered. Generally speaking it is desirable that the assignments (or activities) for the entire unit be worked out and made known to the class in their entirety when the unit is begun. Generally speaking, too, the chosen activities for a unit should be quite definitely stated and quite widely varied.

No prescribed list of activities for use in junior-high-school classes in social studies can be given. Some light may be shed on the matter, however, by a study recently completed by Roy A. Price, Chairman of the Social Studies Department in the junior-senior high school of North Quincy, Massachusetts. On the basis of a rating of activities as to *frequency of use* by approximately three hundred teachers in grades VII, VIII, and IX in various sections of the country, the following activities are ranked high.

1. Listen attentively to oral presentation of materials in the classroom.
2. Give a special report or floor talk.
3. Consult maps to locate information.
4. Engage in group discussion.
5. Read for enjoyment.
6. Read to locate information.
7. Recite in class.
8. Read to understand general ideas.
9. Use charts and diagrams.
10. Draw maps.

Obviously this list is not complete and by no means is indicative of the most desirable activities. The same

4 See Wilson, Howard E. "'Things To Do' in the Social Science Classroom." Historical Outlook, XX, 5 (May, 1929), 218-234; and
Stephenson, Orlando W. "Bringing Aims and Activities Together in the Teaching of the Social Studies." Junior-Senior High School Clearing House, V, 2 (October, 1930), 97-100.

group of teachers rated the activities of writing a summary and making an outline as among the most nearly essential activities of learning. Moreover, all these activities reflect tradition and conservatism. A challenging variety of activities, visual, auditory, oral, writing, drawing, constructing in character, should be added to the work of the flexibly-controlled social-studies classroom. Activities of all natures, provided they are not ends in themselves but are focused on legitimate objectives, are the dynamic aspect of the social-studies curriculum.

The three sides or aspects of the social-studies course of study which have been described — ideas, subject-content, and activities!—are essential to the purview of the efficient teacher. To the degree that the three can be harmonized progress in teaching social studies can be made. Harmony of the three seems closer at hand in the junior high school than in any other unit of the school system.

GEOGRAPHY AND INTERNATIONAL RELATIONS

DANIEL A. PRESCOTT
RUTGERS UNIVERSITY

Dr. Prescott, after graduation from Tufts College, received his master's and doctor's degree from Harvard. He is the author of Education and International Relations. He has been professor of Education at Rutgers since 1928.

WHO is not envious of Thea Rasche, who was recently a passenger with the Dutchmen on the great flight from London to Melbourne? Or who has not wished that he could have flown that race with Scott and Black? They flashed across that 11,300 miles of sea and land in less than three days. The first flight from England to Australia was made only fifteen years ago and required twenty-seven days and twenty-one hours; the record just broken was made last year when the flight required six days and seventeen hours. Now within a year that record has been cut in two. There is glory in an accomplishment like that!

This great air race symbolizes in most vivid fashion the problem and task of educationists, and particularly of teachers of geography. The wonderful performance of the planes is the latest striking indication of man's rapidly increasing mastery of matter and energy, of the annihilation of distance and the dwarfing of natural barriers. In sharpest contrast are the age-old social customs and concepts that dominate the peoples over whom sped those symbols of man's conquest of nature. Through science and its applications we are astoundingly capable of controlling the material environment, of communicating knowledge and thought throughout the world, of transporting persons and things to any spot on the globe within a surprisingly short time. But socially we lag tremendously. How to help take up this lag is a major problem of all teachers of the social studies.

Let us examine for a moment the customs of the areas over which the flight passed. Western Europe is armed to the teeth indicating the atrocious persistence of the barbaric custom of carrying out national policies

by force. Here between very highly civilized nations we find almost complete anarchy. Highly interdependent, they nevertheless maintain their individual sovereignty, yielding little to the development of international law. Southeastern Europe is gripped by the bitterest national hatreds, now made open by the assassination of a king. The populations there show an almost complete obliviousness to the community of interest that is inherent among the common people of all nations. They could do so much to help each other achieve a higher material and cultural standard of living if they would only cooperate instead of spending their thoughts and energies in frustrating each other. The Near East and Western Asia contain hundreds of thousands of people tilling the soil, following animal husbandry or manufacturing vocations in the same manner as they did hundreds of years ago. Their society is only beginning to be organized in a manner favorable to the spread of better habits and ideas throughout the population. The hordes of India maintain a caste system, based on religious and social differences, that prevents them from acting in any concerted fashion for their own good. Their government, their schools and their commerce are largely under the control of an alien people and their opportunity for continuing the development of a distinctive culture is correspondingly reduced. Malayasia and the islands of the archipelago remain quite primitive, yet there is a constant impact of western civilization upon them. This impact is so strongly conditioned by economic interests that the desirability of its ultimate social influence may be questioned unless the colonial governments consider carefully the social effects of their policies. Finally Australia is being slowly repopulated by white men—it seems destined to maintain and develop an essentially western civilization and culture. The flight of Scott and Black is epic for bringing to mind at the same moment man's enormous conquest of nature and his social backwardness.

What study better than geography can help man to understand his social lag? What branch of knowledge is better fitted to help him discover the better way ahead? The machine and the factory may lighten tremendously the life-sapping labor of mankind or they may draw huge masses of people into filthy cities to starve or steal, to suffer endlessly without aid, when the depression side of the laissez-faire business cycle takes the profit out of manufacture. It seems as though we could hardly dare to continue teaching geography as a descriptive science, recounting merely the topography, climate, economic importance and cultural types existing in the different parts of our interdependent globe in the face of such pressing problems of social adjustment. Must not geography teachers examine with their classes the *values* that are inherent in human life and seek to understand how these are realized under varying conditions? Must they not make more graphic the nature of human experience in the different quarters of the globe so that a basis of common understanding and sympathy may be found for the world? Geography in school would then cease to be a descriptive science and include broad questions of ethics and sociology.

Another broad question brought to the fore by the recent air-race deals with the present political organization of the world. The fliers passed over many "sovereign" states and many "dependencies." None of us would tolerate for a moment the idea that anarchy, the absence of law and of government to enforce law, should be sought in our own country. Instead we ask our schools to help train law-abiding citizens. Yet the globe is in a condition of almost complete anarchy. Each state regards itself as sovereign, that is, possessing the right to seek its own ends without hindrance or curb from any other state, obeying no law but its own conscience or the law of expediency set by its own peculiar position, strength, or weakness. In the light of the shrinkage of the world occasioned by our conquest of nature and in the light of the interdependence steadily increased by the variety of materials necessary to modern life, is it thinkable that the world can remain lawless? Yet does not geography often implicitly favor this glorification of political sovereignty by dividing up world areas in accordance with political divisions rather than on the basis of common characteristics of terrain, climate, products or culture? Would it not be better to favor implicitly a more humanistic attitude by describing world areas in terms of the manner in which the resources and populations contribute to human welfare? Of course, I am aware that human geography is rapidly dispossessing political geography in our schools. I merely wish to indicate that it is an excellent trend.

Here must be taken up the basic problem to which this paper addresses itself. It deals with the responsibility of school people to select and organize certain items from among the great mass of material assembled by scientific geographers. Science is concerned primarily with describing, with getting at all the facts and organizing these facts logically to show the relationship which exists between them. But it is apparent at once that school people cannot make scientific geographers out of all the pupils in school. From the material of the scientists they must select the most pertinent and significant facts and teach these. They must decide what it is important for the pupils to know. Here a new and unscientific element is introduced at once. Pertinent to what? Significant for what? Important in what respect? There are the questions that impose themselves and they can be answered only on the basis of a philosophy of education. It is the scientific geographer's task to get the facts, all of them, and to organize them scientifically. But it is the educator's task to select from among these as instructional material those which will best serve the constructive social purposes of education.

One would expect a protest from scientists at this. They would fear, and with good cause, some distortion of truth by an unscientific philosophical selection of the facts to be taught. But I wonder if there can be any truly scientific way of selecting the facts that pupils should know. The frequency of mention of a place or a product in the newspapers or in contemporary books is surely no adequate measure of the vital relationship of that place or product to the critical social problems implied in the first

part of this paper. If it be true that there exists a dangerous lag of social adjustment behind the conquest of nature, if international anarchy threatens us with the outbreak of another holocaust that will menace civilization itself, if racial and cultural differences fan the embers of hatred and suspicion between peoples, is it not the obligation of educators to teach in such a manner as to neutralize these dangers? It seems pitifully weak and silly of educators to worship at the fetish of objectivity by counting the frequency of allusion to certain facts in newspapers in the face of such critical issues. How can they avoid the issue of trying to steer our population away from danger and still maintain a conscience? To my mind educators will be really scientific only when they *develop experimentally the curricula* and courses of study which will accomplish the *aims* which they have arrived at *philosophically*.

Applying this concept to the problem at hand let us accept tentatively the following as aims of the teaching of the social studies, especially geography:

1. To secure in pupils a toleration for the differences in custom, culture, and ideals which exist among the peoples of the world.

2. To secure in pupils the feeling of a community of interest with the various peoples of the world together with the active intention of cooperating with them to accomplish mutually desirable ends.

3. To secure in pupils the willingness to surrender certain elements of independence, recognizing that this is for their own good and for the good of the world community.

Once such objectives are accepted there is an immediate possibility of applying science to education — those facts of geography should be included in the course of study which are found experimentally to contribute to the building of the desired attitudes in pupils; those methods of presenting geography to pupils are correct which most rapidly and effectively engender the needed concepts, feelings, and purposes.

The suggestion is that the content of geography courses should not be determined by the logic of scientific geography, but by the nature of the problems faced by mankind. It is that the outcomes sought from the teaching of geography should not be alone the mastery of the formal facts of the science, but should include attitudes and purposes tending to facilitate the solution of man's problems. I know that these concepts will be hard for many to accept. Dare they accept any other in the light of the present international situation? Perhaps it will be still harder to accept one or two little corollaries that go along with these basic ideas.

The first of these is that geography probably should not be taught as geography, as a distinct science, a separate discipline. In order to make pupils understand the interdependence and community of interest of different peoples it is probable that many of the facts of history, economics and sociology must be learned along with those of geography. The natural inference is that the boundaries between these branches of knowledge must be broken down, that something even

more integrated than "the correlation of subject matter" in several distinct subjects must be accomplished. Bode has spoken of the danger of compartmentalizing our minds — most pupils are practiced daily in this undesirable skill by forty minutes of geography unrelated to forty minutes of history unrelated to forty minutes of literature. So any genuine attempt to solve the world's difficult social problems by fostering more wholesome attitudes about international matters should include the experiment of studying about problems instead of studying isolated subjects.

A second corollary is that this instruction about problems should not be too intellectual, too bookish. Youngsters need a chance to experiment and to feel. If the study involves things near at hand this implies visits and activity, if it involves distant lands it means many stereoscopic and motion pictures, many good realistic stories, the exchange of materials and products with the schools of those lands and correspondence between the children of this and other lands. In other words the school situation must be set up in such a manner that our children get a feeling of a vital relationship to the children of other lands. For example, it would be very interesting to see motion pictures of the games which children play in various countries, to exchange correspondence with children of the different nations about these games, and to plan a festival at which the children of various grades and classes would demonstrate the games of different lands. Here it is important that similarities and common elements be stressed as much as differences and the reasons for differences should be studied when they do occur. What has been said about games should be extended to include home life, labor, school life, and various other cultural manifestations.

The main thesis of this paper is that the school should teach the science of geography to only a limited extent, but that it should draw heavily upon geography for materials with which to help children *understand* the world in which they live. This understanding involves definitely the feeling of a challenge to solve the many problems of human relations which press us. To get this feeling, certain basic emotionally-toned attitudes should be sought in children. Typical of these in connection with international problems are: (1) tolerance of racial and cultural differences, (2) a feeling of a community of purpose with the remainder of mankind, (3) a willingness to sacrifice personal and national independence for the good of humanity in a world that is better ordered.

GEOGRAPHY TEACHING IN ENGLAND

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IN English schools, from the lowest to the highest, no curricula are enforced and no books are prescribed by the education authorities in any subject. The teacher is free to adopt what scheme and what books he pleases. The result of this is a spur to individual initiative and experiment, but it makes it very difficult to say, except in very general terms, what is meant by the title of this article. There are, in fact, many methods of teaching geography in England, a wide diversity of schemes and a multitude of text-books. At the same time there is, amongst those who are of any standing as geography teachers, a fairly general agreement as to the content of the subject as far as young people are concerned. I believe that English views are not very different from those expressed by the leading geographers of America, but at the request of the editor, I have consented to try to set them forth. If I write dogmatically it is not because I feel in the least dogmatic but because this method of stating the case leads to brevity and provokes discussion.

Young students are generally taught in their pedagogic studies that one of the first principles of a good lesson is to "Begin at the beginning." We accept the slogan in so far as it refers to a single lesson but consider it a bad principle to adopt when attempting to construct a scheme of work that may cover the whole of the school life of a child. We prefer to reverse the instruction and "Begin at the end," that is, to determine first of all what is the ultimate aim of the scheme.

What is it that we expect to accomplish by the teaching of any specified subject? The world of knowledge is so wide and the school life of the child is so short that there is no time to waste upon inessential things, but it is not possible to determine what are essential things unless we first specify the purpose for which the things are needed. A knowledge of all the capes and bays along a coast may be essential for a navigator but not for a course in morals and, so we have come to think, not for a course in geography either.

What applies to the choice of *subjects* for inclusion in the school curriculum applies, with perhaps even greater force, to the choice of *facts* to be taught in connection with the study of any given subject. It is necessary to ask what is the purpose to be achieved by the teaching not merely of a subject but even of a single fact. Without some kind of philosophy we shall wander aimlessly about from one subject to another, change one method for another at the bidding of some alleged expert, and criminally waste the precious hours of a nation's child-

hood as has been the custom these many years past.

Hence, if we are to teach geography, for any other reasons than that it is the custom so to do and that educational authorities of varying degrees of wisdom order us so to do, we want, at the outset to ask, not merely

1. What can be achieved by the teaching of the subject?

but

2. Is the achievement worth while? and
3. Could the aim be better achieved by the teaching of some other subject?

Perhaps the most futile reason offered by teachers, parents, or anyone else for claiming the attention of children to any body of knowledge is that it is *useful,* unless it can be added that it is *indispensable,* as is true, to some extent, in the case of the "Three R's." All knowledge is useful somewhere, at some time and somehow or other, but we do not propose, for that reason, to adopt a mighty encyclopaedia as a text-book and attempt to absorb the contents of its thousands of pages. There is far more useful knowledge than anyone can either know or use, and whole continents of knowledge will have to be neglected by us all. What is at issue, in the case of any subject, is its relative value.

As we have not time to master all the subjects, we ought to be able to make out a very strong case for the attempt to master any one of them. We ought to be able to show how it is expected to function in the realization of our visions of a better, shall we say a perfect, nationhood.

The special function of geography is to help the child to adjust itself to the three worlds, physical, social, and international, in which it lives, and hence to lay the foundations for three types of citizenship, local, national and international.

1. Local citizenship has its roots in the locality. Hence we should stress at all times all the lessons that can be learned by direct observation. These observations form a starting point. Thus the knowledge of the meaning and reading of a map should begin with the making of the roughest kind of sketch maps,—the classroom, the school, the school and playground and so on. This necessitates a graded and progressive course in map making and map reading that develops throughout the school life. Local observations are useful, too, as standards of comparison, e.g., observations of wind and weather, sunshine and rain, heat and cold at home help to give the necessary foundations for the realization of the climate of other regions. Observations on local occupations, communication, food supply and water supply all have their places, but not so much in a subject called "local geography" as at all times, in all grades, wherever and whenever they can be employed to illustrate the world beyond the school.

2. National citizenship, or patriotism, has its roots in the study of the wider area of the homeland. This study should be pursued on a regional basis and, in the case of the United States, not on the individual states. The idea that runs through a series of regional studies is that of bringing into direct relationship the place (the stage), the people (the actors), and the work they do (the drama). A

great deal of so-called regional geography is no more than disconnected lists of names, and differs only from the older types of geography in the rearrangements of the lists. True regional geography should leave an impression of the region in all its more important aspects, so that the Cotton Belt, the Corn Belt, or the Western Cordillera should be seen whole as places where people are living and doing things and, usually, doing them very well, given the particular circumstances of the case. When we can see all our own people playing their parts in the drama of our national life we may have much cause for legitimate pride even if we may sometimes consider there is, here and there, room for improvement.

3. World citizenship has its roots in the study of the still wider area of the world as a whole. In order that the study of geography may make for better international relationship certain very important practical conclusions are forced upon us.

First, the geography syllabus should cover the whole world. When one considers that pupils are at school for ten or more years, it is deplorable that any one of them should leave without having included all parts of the world in his or her geographical studies. Thousands of children never hear anything about certain parts of the earth and this, not for want of time, but for want of forethought and careful planning. To cover the whole world, not of course with equal thoroughness in every section of it, is by no means an impossible task. It is largely a matter of organization and the discarding of irrelevant and unimportant detail.

Next let us notice that if the study of geography is to have its full effect in the creation of an outlook that makes for world citizenship it must be characterized by unfailing accuracy. In former days children in England did sometimes know the names, for instance, of every state in the United States and the peaks of the Rockies and could point out all these on the map. Today teachers who are more interested in cause and effect often become far too careless about drilling home essential facts. The result is a mass of sloppy thinking ranged about a mass of frequently incorrect or ill-digested data.

Finally, even if the whole world be studied, and even if the selected facts are thoroughly well known, there will be a lack of the right outlook unless the facts are presented in such a way as to evoke it. They must be presented, on the basis of natural regions, as in the case of the homeland. Only those facts and ideas that help the child to establish clear and accurate conceptions should be chosen: the human note, that is, the way in which man adjusts himself to or modifies the region must be dominant; the picture must not be overloaded.

To help us to make the picture of a region alive we should introduce the children to the people who have been there, that is, we should, according to the age of the pupil, make constant use of original sources. Not only have we, in order to make a region live, to listen to the voices of the explorers, we have also to look at it with the eye of the artist and the photographer. This means the constant use of well-chosen pictures but they

must be really geographical pictures and not merely of railway stations or post offices. It should be possible to write under each one of them

"This picture shows . . . "

and the thing shown should have some quite definite geographical value.

We are still living in a world unsettled as the result of a great European upheaval. That upheaval has left us all with a diversity of problems, both domestic and international, that can be settled only by the cultivation of a particular outlook upon life on the part of all those concerned whether at home or abroad. If the war emphasized one thing more than another it was that the several parts of the world are interdependent and not independent. There was scarcely a state, however small and insignificant, that did not, between 1914 and 1918, feel the shock of the contending armies in Western Europe. Genuine neutrality vanished from the face of the earth. The fact of this interdependence was early realized and acted upon; it is just as true in the days of peace. The world is one, and of it we are all citizens, an idea that has to be eternally recognized and find expression both in schools and outside them. Indeed, if it be not taught in the schools, its expression beyond their walls may be found almost impossible. And no subject, not even history, affords such opportunities as geography for presenting a view of the *whole* world, based on absolutely accurate and non-controversial data.

PREPARATION OF GEOGRAPHY TEACHERS

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DR. Augustus O. Thomas, founder of the World Federation of Education Associations, says: "This new geography contains the essence of education more completely than any other one subject. Aside from the mechanics of reading, if I were to select one subject which should be taught to all the children of the world as a means of bringing about understanding and cooperation, I should choose the subject of geography, and this would be chosen with a view not only to the usefulness of the subject matter and the fascination of its study but the cultural elements as well. I know of no subject which combines these several elements which education seeks to cultivate as the subject of the earth and its inhabitants, the geographic laws under which they live, how they are interrelated and how the different parts of the world help each other to live. It is the one live subject vibrating with the keenest interest imaginable."*

Dr. Thomas does not represent "intrenched interests" and cannot be accused of being a "special pleader." He has stated clearly the distinctive educational value of geography and the recognition that should be accorded to it as a school subject. To make the contribution that he suggests, properly qualified teachers are needed. Would any school administrator employ a teacher to take charge of classes in history, mathematics, English, music, athletics (especially football), et cetera, if he knew that the teacher had never had a single course of training in those subjects since he was a child in the grade school? There is little doubt but that he would consider a suggestion that he do such a thing as an insult to his intelligence. Yet, in many instances, that is exactly what is being done in the case of geography teachers. There are many well-trained teachers in our elementary and secondary schools, but available data show that approximately 12 per cent of the departmental teachers of the country, and nearly a quarter of the general grade teachers have had no geographical training beyond the grade level in which they are teaching. This is a situation that may be corrected by any teacher-employing official. Will he do it? Properly-trained teachers are becoming available in increasing numbers, even though the training of teachers and the employment of trained teachers have not kept pace with the development of the subject. Thorough training is now available in many of our teacher-

* Education, Vol. 52, p. 251.

training institutions, and we are rapidly approaching the time when there will be no possible excuse for the absence of fully-trained teachers in all of our school system. In the past it has been common practice to assign the geography classes to any teacher who happened to have a vacant hour without regard to the teacher's qualifications. There is no need for the continuance of this practice today if the school administrator will set the same requirements for teacher-preparation in geography that he does in other subjects. And, further, teachers colleges should insist that their graduates be as well prepared in geography as in other fields.

Teacher-Education in Geography

Geography, like other fields of knowledge, is constantly undergoing change in content and in viewpoint. We do not know what change the distant future will bring. I am not a prophet and hence I speak for the present and the immediate future. A college course should give training that will enable the teacher to think and act for himself in terms of geographical and educational materials in any teaching situation that may arise. That is, he must have the ability to do constructive work independently, in contrast with mere skill in teaching a given topic as he was told to teach it. I am not interested in producing mechanical repeaters.

Just what training in geography should be given? Teacher-education in geography may be considered threefold. *First,* training as teachers of geography and supervisors. *Second,* training in geographical thinking as an aid to the solution of economic, political, or social problems. *Third,* for a breadth of view as teachers of young people. A geography teacher needs a knowledge of subject matter, ability to utilize new data, and training in educational theory and in practice sufficient to enable him to use geographic material in the education of the child. The successful teacher must approximate mastery of both fields of knowledge.

Principles Involved in Training Program

First, the core of college training must provide knowledge of the subject matter adequate to enable the teacher to think geographically, and particularly in that body of subject matter likely to be utilized in the elementary and secondary schools. Inadequate knowledge of subject matter is undoubtedly the greatest cause of failure among geography teachers. *Second,* the course of study for the training of geography teachers should provide a continuity of study in core material. In other words, there should be set up a minimum that samples each phase of geography most important to teachers in the elementary and secondary schools. *Third,* the training should provide knowledge of source material and training in its use for teaching purposes. *Fourth,* there should be adequate training in organization and presentation of geographical material. *Fifth,* there should be adequate training in educational theory so as to enable the teacher to adapt geographical material to particular grade levels so that such materials will contribute most effectively in preparing children to meet the problems confronting them as members of organized society.

The Geographic Core

I shall consider here only the sample core material. The average high-school graduate enters the teachers college with some four to six years' training in English, two to four years in history, and similar amounts in the other major subjects. However, he brings almost no training in geography from his high school. The college instructor must therefore lay the foundation, as there is nothing upon which he can build. This situation determines the introductory course in geography and likewise indicates the minimum (12 semester hours) that should be required for all teachers of geography and of the social studies.

First. The introductory course deals with the fundamental elements of human geography and lays a foundation for all further study and geographic interpretation, and provides the point of view. It supplies that body of information that is essential to an understanding of geographic concepts in contrast with mere memorizing of them.

Second. The training should include courses in regional geography, that is, a study of the continents. Here the student should be trained in an application of the principles taught in the introductory course, and in a variety of ways of organizing geographical material of an area. Practically all teachers in grades four to eight make direct use of this type of regional study. It also provides training in the selection and organization of subject matter and thus gives specific professionalized training.

Third. The core material should include world-view courses that extend the horizon of the student to include the interdependence of nations. Such cross-section courses contribute to a knowledge of many regions, and, since they involve the world, they contribute effectively to successful teaching at all grade levels.

Fourth. The training should be climaxed by a course in geography in education commonly known as a technique course. This course should give students a comprehensive view of the function of geography in the field of education; training in the distinctive technique and presentation of geographic subject matter; develop skill in the use of geographical materials for teaching purposes and weld into a unified whole, the previous geographical and professional training which the student has received in his four-year course. It should be correlated closely with the department of education and practice teaching, and should enable the student to start on a teaching career with a feeling of confidence.

Fifth. Since modern geography utilizes material from many fields of knowledge, the properly qualified teacher must round out his training from several allied fields, such as history, economics, sociology, biology, and geology. Such study is in addition to the essential professional training in psychology and education.

Making the Plan Function

In practice the curriculum maker is hedged by many restrictions. These are due, at least in part, to the fact that most teachers colleges are in the early stage of evolution from two-year normal schools to four-year colleges, and also to the fact that most teachers are required to teach many subjects. At first sight the situation

appears hopeless, but it is perfectly possible to set a basal curriculum that may be modified to satisfy local requirements. The core material of this curriculum has just been presented in general terms. There is no *one* scheme that should be followed to the exclusion of all others. I have no desire to set up an arbitrary procedure for the education of geography teachers, but have tried to indicate what should be the unifying core.

To carry out the plan presented requires no radical change in the material now offered, in a more or less haphazard fashion, in our teachers colleges. The most important changes needed are: (1) organization of the material so as to secure continuity and coherence that are now almost wholly lacking, and (2) administrative, i. e., setting up a minimum requirement that will include the organizing core of a sound teacher-education course. Since the great majority of teachers college graduates must use geographical material directly or indirectly in their work as teachers, a large measure of responsibility rests upon the institutions, not only in the preparation of geography teachers but in laying a suitable foundation for teaching the social studies.

Summary

The central theme of school geography is found in the adjustments that people make to their natural environment, i. e., the utilization of their natural resources. It is no longer merely a study of isolated facts. To function effectively the modern science of geography requires teachers adequately trained in its subject matter, its viewpoint, and with ability to interpret geographical material. Our present secondary school gives the student who is a prospective teacher little opportunity to become acquainted with the field of geography. Hence, a student enters our teachers colleges with practically no knowledge of the subject matter except that gained incidentally, or in the elementary school.

Hence systematic teacher-education must include as a minimum core: (1) a basal course of fundamentals, (2) regional courses, world-view courses, and (3) a course in technique of teaching.

Those concerned with geographic education seek no special privileges. Geography needs no special favor. It has a contribution to make to the education of the child that is distinctive and its value will be demonstrated by properly qualified teachers. The essential need today is *an appreciation* on the part of school administrators and teachers colleges of the importance of a geographic knowledge of the world in which we live; the significance of such knowledge in the solution of many economic, political, or social problems; the distinctive contribution that geography may make to the education of our youth that is exclusively inherent in geography; and the need of placing the training of geography teachers on a basis equal to that provided in other fields of knowledge.

SOME OPINIONS OF SPECIALISTS IN EDUCATION RELATIVE TO THE PLACE OF GEOGRAPHY IN THE SOCIAL STUDIES

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THE question of the place of geography in the social studies has perplexed educators for some time. Opinions vary from the teaching of geography as a separate course to fusion of history, geography, and civics into one course, or to unification of all the social studies. After a study of the opinions of leaders in the field of education relative to their views on this question, it seemed best to summarize several of these opinions and to present them in this paper.

The opinions of Roy W. Hatch and Harold Rugg appeared in an article by Edgar C. Bye.[2] These points of view will aid in clarifying our ideas as to the several terms used in the different classifications.

"It is not the abolition of subject lines which is advocated, but the abolition of subject viewpoints, a substitution of the viewpoint of the teacher of children for the viewpoint of the specialist in history, geography, or government. A fusion course is proposed because in one such course the functional purpose can be more economically and efficiently accomplished than it can be in three subject courses.

"The specialist emphasizes the particular point of view of his special subject. The point of view of the junior high school teacher should be quite different from that of the historian, the geographer, or the political scientist. . . . The true fusionist sees children in contact with their environments and asks himself how he can best use historical, geographical, and civic materials for the purpose of promoting adjustment. His eye is always on the child, not on the aims of history or geography or civics. How these subjects can be used to accomplish the fundamental aims of education is his problem, not how the pupil can be made to master a subject for its own sake.

"What, then, is the fundamental principle upon which fusionists stand? Not denying that functional material may be included in subject courses, and claiming no monopoly upon the use of the unit, in what respects do they differ from others? Primarily in the fact that they insist upon a functional organization as well as a functional content. This principle, it may be said, also underlies unified courses of the Rugg type. Unificationists and fusionists, all of whom are incorrectly included under the latter term by Professor Wilson, agree upon this principle. The fusionists, however, have not embarked upon as ambitious a program as the unificationists. The Hatch course attempts only to use history, geography, and civics. The Rugg course attempts a new synthesis of knowledge without regard for current courses.

"The abolition of subject lines may mean the abolition of all subject boundaries or it may mean the abolition of some subject boundaries. The blenders disagree on this point, and just here is where confusion of terms creeps in. Professor Wilson throughout his study refers to fusion and fusionists, but the kind of organization to which most of his criticism is directed is the unified plan of Harold O. Rugg and his associates. The distinction is more than

a matter of quibbling over terms, for there is a real difference between the fusion of Roy W. Hatch and the Rugg plan of unification. At the inception of his work Mr. Rugg said, 'This is not an attempt to merge the established subjects. Rather than that, the procedure we have employed starts with no interest in the established order. It completely disregards current courses. Only one criterion is employed in selecting the content of the courses: its contribution to present living.'

"With the same functional purpose in view, Mr. Hatch set out to 'invent a new synthesis of knowledge and make it the basis of the entire school curriculum; but to accomplish a much more modest end: namely, the fusion of history, geography, and civics into one course.' Mr. Hatch was the originator of the term *fusion,* and it can be properly applied only to the type of organization which he has described and demonstrated. A favorite statement of his, often repeated, is: 'I am not one who believes in geography, history, or civics for its own sake. As a teacher of youth I do not have the specialist's interest in any of these subjects of study. I want to see the various tributaries, geography, history, civics, each contributing to the main stream.' Herein lies the significance of the word *fusion.* It implies something more than finding points of contact between different fields of knowledge. Geography, history, and civics become not ends in themselves but means to an end. This is what Charles W. Eliot meant when he said: 'Teach groups of subjects in their natural relationships. For history is meaningless without a stage—geography—to act it on. A stage without action is inane and absurd. And group action, history, without organization—government or civics—is impossible.'"

The opinion of Charles A. Beard[1] differs in that he believes that no matter how far fusion or unification progresses, yet one subject will always stand out.

"By thoughtful scholars in the several domains, even the most exacting specialists, these boundaries have never been treated as rigid, and during the past fifteen or twenty years there has been a marked tendency to cut across them in every direction. This does not mean, however, that *a* or *the* social science has been created, a synthesis transcending the disciplines themselves. Nor in the present state of things does such an achievement seem possible. Each of the disciplines inevitably has a center of gravity or furnishes a point of view from which materials are surveyed and brought into an organization of knowledge. Apparently a synthesis, could it be effected, would be a skillfully wrought mosaic rather than subliminal coalescence in which the separate disciplines would disappear and completely lose their identity as law, politics, economics, geography, and history. Conceivably some higher unity may be attained, many new arrangements of materials may be effected, but the stubborn and irreducible elements of the special disciplines would remain imbedded in it and, unless it were formless and void, it would inevitably be organized around some central philosophy of concept, faith or assertion."

Augustus O. Thomas[10] gives a brief review of the growth of geography, and believes it should be a definite field of study.

"When I studied geography as a boy in school—Harper's, I think—the subject was defined as 'a study of the earth's surface on a plane.' This would be a very poor definition at the present time. In those days, geography was largely a 'place' study—mostly map work. Then came a division into physical, political, and industrial geography. Since then, we have taken in almost all of the subjects which are related to the study, including geology, astronomy, mathematics, biology, physics, ethnology, and could easily add the ancient languages as well as the modern, political science and government, and almost

all of the subjects which are contained in the curricula of schools and colleges. But the study of geography is fast rounding into a definite field, cutting off those things which may be classified as separate but related subjects. This new geography contains the essence of education more completely than any other one subject, aside from the mechanics of reading. If I were to select one subject which should be taught to all the children of the world as a means of bringing about understanding and coöperation, I should choose the subject of geography, and this would be chosen with a view not only to the usefulness of the subject matter and the fascination of its study, but the cultural elements as well. I know of no subject which combines these several elements which education seeks to cultivate as the subject of the earth and its inhabitants, the geographic laws under which they live, how they are inter-related, and how the different parts of the world help each other live. It is the one live subject vibrating with the keenest interest imaginable.

"We cannot accept geography teaching which does not regard the human values as essential. The study of the plant life, the mineral life, the climatic conditions, the natural resources of the country, and the possibilities of transportation cannot be called geography teaching unless these are translated into the lives of men, and unless again these can show the movement of the human race as onward and upward. Progress is the increasing control of man over his environment and a closer, more intimate understanding of the unchanging, immutable laws which govern and affect the entire universe."

Edwin H. Reeder[9] expresses what he believes is the opinion of many geographers and historians.

"No good teacher of geography has ever hesitated to introduce historical subject matter into his classes, nor have history teachers failed to borrow largely from the findings of geography. But when a geography teacher introduces historical subject matter into his classes, it is for the purpose of furthering geographical thinking—for answering a geographical problem. When a history teacher introduces geography into his classes, it is to aid in historical thinking. There is a clarity instead of confusion in the point of view from which the subject matter is interpreted. . . .

"The writer believes he is expressing the opinion of many geographers and historians when he says that he welcomes an integrating course or series of courses in late junior or senior high school, which might be called 'Modern Problems in the Light of Geography and History.' Such courses would help the child to bring to bear upon the problem of a sick world both the points of view of geography and of history and would be the finest type of preparation for intelligent adult citizenship. But the successful pursuit of such courses would mean a real grasp on the part of the student of the fundamentals of geography and history. One cannot integrate ignorance."

Another view expressing the fact that geography should be a separate course is that of Thomas F. Power,[7] Assistant Superintendent of Schools, Worcester, Massachusetts.

"We are so enthusiastic about the vitality and motivation of this subject (geography) when presented according to the suggestions in our course of study that we are rather emphatic in our opposition to recent exhortations in educational circles to 'fuse' geography with history and civics."

Charles A. McMurry[4] fears that in over-stepping boundaries confusion in the line of thought in the study will appear.

"The topics of study in geography, history, natural science, and other studies must run parallel to one another, so as to meet the needs of children and to allow of a natural and many-sided correlation between the studies.

"There is danger of confusing and mixing studies. In stepping across the boundary into any related branch, there is peril of losing the connection with the fundamental line of thought in the first study. In geography, especially, it is easy to become so interested in the science or history topics suggested by a geography lesson as to spend too much time upon those related topics."

Frank M. McMurry and A. E. Parkins[6] believe that geography is a definite subject wherein coherent literature should be presented.

"The study of geography should be confined to the topics that have the most important human relationships. The crying need in geography in recent years has been to get away from the encyclopedic presentation of facts. Modern theory demands that a geography be not a small encyclopedia but a volume of coherent literature."

The opinion of Charles H. Judd[3] is that geography cannot carry the burden of too many other types of thinking.

"It has also been suggested that geography be made the vehicle for social studies. Here we find that the facts of ordinary school experience show the fallacy of expecting geography to solve the problem. Geography tends even now to pass over into the related sciences. The natural sciences of physics and biology take up the phenomena with which geography began, and the subdivisions of commercial and anthropological geography grow out of the demand for a more systematic study of groups of facts which ordinary geography cannot hold together in the upper grades. So long as geography confined itself in the lower grades to locational studies and general descriptions, the subject was characterized by an intelligible plan and clearly recognizable identity. If the attempt is made to have geography carry the burden of too many other types of systematic thinking, it will break up even more than it has now in the upper grades."

Donald L. McMurry[5] believes that the concept involved should be kept in mind in drawing from the various studies rather than the separate subjects themselves.

"A Unit may belong primarily to history, government, economics, or geography because its main theme is so classified or because the emphasis in treatment rests upon the point of view of one of these disciplines. In the detailed treatment of this unit, however, material from any source, regardless of subject matter classifications, should be used if it serves a useful purpose in explaining or clarifying the topic or any essential part of it. The basis for inclusion or exclusion of material, therefore, should be, not whether a fact belongs primarily to one or the other of the separate 'disciplines' or organized bodies of subject matter, but whether it contributes to the understanding of the concept involved in the main topic or any of its parts."

In conclusion, the opinion of Edwin H. Reeder[8] brings out why the teacher of geography contends for a separate place for his subject.

"Most, if not all, of the authors of this Yearbook believe that a regular period for the study of geography, as such, should find a place in the program of studies of the upper grades. But we are holding no brief for the utter isolation of the subject from all others as was the rule in the past. So broad and rich is the subject of geography that many other school subjects may make valuable contributions to its study, and it, in turn, may help in understanding and appreciating the other school subjects.

"When, therefore, the modern geography teacher demands a separate period for his subject, he is not in the least contending for an utter isolation of his subject from the other school sub-

jects. He simply believes that there is such a thing as a geographical point of view; that this point of view is most valuable for the intelligent citizen; and that it cannot be grasped and understood if geographical subject matter is simply mixed in with other subjects without separate treatment. In other words, he recognizes the relationship which exists between geography and the other school subjects, but he insists that relationship must not be confused with identity. . . .

"Geography cannot be best taught in utter isolation from other school subjects. Geography, however, represents a distinctive point of view that warrants for the subject a specific period in the program of studies."

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THE EVOLUTION OF GEOGRAPHY AS A HIGH SCHOOL SUBJECT

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GEOGRAPHY as an instrument in the education of adolescent youth has reached its present form through a long evolution. Its origin is lost in antiquity, but in its newer aspects it is a recent addition to the high school curriculum. Thus it may pose as a venerable secondary school subject with ancient rights, or as a newcomer demanding recognition solely on its merits. Its progress has been marked by a series of advances and retreats, for the subject has shared in the perennial conflict between the practical and the traditional in education. It has made headway whenever it has singled out the distinctive feature of the age and has concentrated attention on that feature. It has lost ground at times by continuing to stress subject matter no longer significant. Changes in content to meet the needs of a changing world divide the evolution of the subject into three stages or periods, the first ending about 1500 A. D., and the third beginning about the middle of the nineteenth century.

In the long period before the age of discovery and exploration, geography slowly took shape within the larger subject of cosmography. Facts about the known world mingled with conjecture regarding unexplored regions, with astronomical knowledge, and with speculation concerning the nature of the universe. The subject provoked philosophical thinking, and some of the theorists among the ancient Greeks discussed the relation between the history of peoples and the nature of the land occupied. During the Middle Ages the writings of Greek philosophers were not accessible to European readers, but travelers journeyed farther from Mediterranean shores, and there grew up a body of descriptive literature dealing with conditions observed by the writers in the countries visited. Such writings came to be used in instruction. Particularly popular with teachers of that age was the treatise on universal geography included in the *Historiae* written by Paulus Orosius, whose work as a theologian took him in the early 400's from western Spain to northern Africa, and thence to Palestine. Instruction in geography took a new turn during the Renaissance, when enthusiasm for classical learning created a desire among scholars for the facts of the ancient world and the philosophy of Greek geographers. From that period dates the demand for the place geography of the ancient world as an aid in reading classical literature and history.

The age of discovery and exploration gave rise to a new branch of geography. Ancient geography, inherited from the previous period, was

traditional in the schools and was considered a "gentleman's subject." A radically different phase of the subject developed in response to practical demands. Both phases persisted throughout the period. Frequent references to geography, either as taught or as recommended, indicate that the subject received attention in most of the English academies during the 1600's. Customarily it was entrusted to foreign language masters, an arrangement in harmony with its nature and aim, since these schools taught ancient geography as a tool for use in reading the classics. During the same century the new phase of geography gained a foothold in certain private schools with a vocational aim. The supreme interest of England at that time lay in the direction of exploration, colonization, and trade. The imagination of the people was reaching out beyond the island boundaries, and the romance of new lands made navigation a most alluring career. In response to this practical situation, geography as a branch of navigation developed in schools which prepared boys for a life on the sea, and from which fortunate students were appointed to apprenticeships under captains of ocean vessels. In harmony with its specialized objective, the revised subject placed much emphasis upon mathematical geography, the location of such sailors' landmarks as capes and promontories, descriptions of over-sea lands which might prove desirable fields for colonization, and the products which these lands promised for British trade. The impetus gained through the close adaptation to current needs proved sufficient to give geography a place in secondary education for two centuries and to open the way for expansion into the elementary schools.

Both phases of geography had a place in American secondary schools before the end of the period. Towards the end of the eighteenth century, academies were established to provide something more practical for children of the middle classes than the classical education of the colonial *grammar schools*. New England had maritime interests, as had the mother country, and it was natural that the academies should give early attention to the more practical phase of geography. The American textbook written by Jedediah Morse and published in 1784 contains the type of subject matter which had been a radical innovation in England a century before. It began with mathematical geography, sketched the discovery and exploration of America, and described the known world, mingling fact and fancy in the descriptive section. Since the graduates of the academies ere long were filling most of the teaching positions in the better elementary schools, the expansion of geography to the elementary level of education was a natural step. In the early part of the nineteenth century, university influence led American secondary schools to introduce geography in the form traditionally recognized as cultural. In 1807 Harvard University placed geography among its entrance requirements, and soon thereafter the subject was included in the curricula of schools offering college preparatory work. When Boston established an English High School for Boys and a similar school for girls in the 1820's, geography was listed in the curricula

of both. For several decades these schools gave no instruction in modern geography, but taught the ancient geography of classical and biblical lands. In both ancient and modern geography the knowledge of place locations formed a major objective,—and a really logical one in view of the paucity of maps and reference works at that time. However, tradition dies hard, and schools insisted on having their students memorize long lists of locations long after the indexed atlas, the railway guide, and the encyclopedia gave ready access to such facts. Out of this practice and a delay in recognizing the new educational needs of a changing world grew the widespread belief that geography as a school subject had nothing of value to offer.

The evolution of geography in secondary education during the last hundred years has given the subject a vastly enriched content, a new viewpoint, and a place among the subjects exercising the reasoning powers as well as memory. Content has expanded so greatly with the increase in earth knowledge that ideas have been grouped under such titles as physical, political, commercial, historical, and regional geography. The new viewpoint does not disregard the value of information but strives to aid memory and make facts more useful by showing the relation of one fact to others, particularly the relation between man's work and the nature of the area where he lives. This viewpoint is not new, but a long time elapsed before the general idea had been analyzed and made specific enough to fit it for adoption in secondary education.

A modification of geography along modern lines took place in the secondary schools of Germany earlier than in those of the United States. This fact is attributed to a difference in the attitude of the universities toward geography as a science. At a relatively early date geography became a respected branch of science in German universities and these institutions offered special training for students preparing to teach geography in secondary schools. In 1886, when the British inspector of geographical education traveled in Germany to learn the status of geography in the schools of that country, more than half the German universities had classes in geography; and Professor Wagner of Göttingen University himself had examined more than 200 candidates for the degree of *Facultas Docendi,* which was granted on the completion of the two-year university course leading to the teaching profession. Some ten years later William Morris Davis stated that in the few American universities offering work in geography the subject usually was assigned to a man whose major interest lay in some other field. In Germany the supply of trained teachers had a decided effect on the quality of geography teaching in secondary schools. The British educator mentioned above reported that physical, political, and historical geography were taught in the gymnasia, while a thorough grounding in the first two of these branches was required for admission to the Commercial School of Leipsig and the War Academy of Berlin. His observations showed the subject to be in the hands of well-prepared teachers whose instruction was not limited to the content of the textbook used, while appa-

ratus was abundant and reasoning on significant features was encouraged.

In the United States the introduction of physical geography marked a notable departure from the traditions of geography in secondary education about the middle of the nineteenth century. The subject appeared in the curricula of the English High Schools of Boston in 1866 and was introduced in a number of other cities about the same time. It probably was recognized in some of the academies or other private institutions a little earlier, for Fitch's *Outlines of Physical Geography,* "adapted to the use of Schools and Academies," appeared in 1855. The author says that his is the first American textbook devoted wholly to physical geography, but he cites Somerville's *Physical Geography,* published in England, as one of his sources. According to Fitch, physical geography "relates to the earth as it exists in a state of nature, without regard to political or arbitrary divisions, or to any of those changes or improvements which have been effected by man." This being his theme, he was able to break away from the tradition of geography as a study of countries. He takes a world viewpoint and stresses the distribution of natural features, making use of such generalizations as the relative abundance of fresh-water lakes in "the northern regions of the globe." World maps show the distribution of climatic phenomena, of useful minerals, of useful plants, of wild animals, and of the races of mankind. Some attempt is made to explain the distribution of the phenomena treated, but in the main the subject was descriptive rather than interpretive.

The appearance of physical geography in secondary education reflects the widespread interest in science which developed during the latter half of the nineteenth century. It brought to the schools new material whose source lay relatively near the frontier of scientific research. When Fitch wrote, Humboldt still was alive and Louis Agassiz in his prime, and the textbook reveals the author's familiarity with the research of both men. On his map "illustrating the Geographical Distribution and Limits of some of the Principal Phenomena of Meteorology," Fitch shows annual isotherms, a device originated by Humboldt, and in the chapter on glaciers he cites observations made by Agassiz in the preceding decade. While physical geography for a long time was mainly descriptive, an interest in causal relations was evident, even in the early days of that subject. Fitch attempted to account for earthquakes, the tides, and the wind belts, but from the geological works existing at that time he was able to obtain suggestions as to the origin of only a few land forms. Geomorphology was in its infancy.

The replacement of physical geography by physiography marked a more direct contact between scientific research and secondary education than had existed previously in the teaching of geography in the United States. The new subject was interpretive in its aim and emphasized logical thinking. It focused attention on the forces which shape the surface of the earth and cited specific features as examples of the work performed by particular forces or agents. Unlike physical geography, it did not stress

the areal distribution of the land forms studied. Physiography, differing sharply from any subject taught in the elementary school, was received with enthusiasm and gained access to the public high school more promptly than had the geographical innovations of earlier times. This took place about the turn of the century and was due in large part to university influence, particularly to the work of William Morris Davis at Harvard and Rollin D. Salisbury at the University of Chicago. Both men were scholarly research workers and their interpretation of land forms gave a new trend to geography. Through their textbooks, their leadership in adapting laboratory technique to physiography, and their participation in the training of teachers, they exerted a profound influence on geography at the secondary level.

The later decades of the recent period have been characterized by the rise of commercial geography. The movement was so weak at the beginning of the present century as to appear unworthy of notice, but it gained impetus during the second decade, and by the end of the third decade commercial geography had a place in more high schools than any other branch of the subject. There were a number of conditioning circumstances which encouraged the transition. Physiography had gained respect through its scientific soundness and its utility for exercising the reasoning powers. However, claims were advanced that its emphasis on natural processes made it too abstract and theoretical for the average high school student working under a teacher without special training in the subject. Educators pleaded for a geography content with more of human interest, and response came from various quarters. Among the phases of geography offered as a substitute for physiography, commercial geography has shown the greatest vitality. Its growth has been slow but cumulative, and reports of the Bureau of Education show the number of secondary school students enrolled in classes of commercial geography to have increased nearly 300 per cent between 1922 and 1928.

As it exists in the secondary schools of today, commercial geography is descended from two ancestral lines—the geography already established in schools, and the body of commercial information which had belonged to the specialized training of boys preparing for business. A distinguishing trait of the former line is the arrangement of subject matter by countries. An early textbook which shows this heritage and presents well-chosen facts in a telling way is *A Commercial Geography* by John N. Tilden of Peekskill Military Academy, published in 1891. The book was written, according to the author's statement, in response to a need felt in the academy, and probably some significance attaches to the fact that the academy was situated near our leading port. In spite of its quality, this book seems not to have had a large place in the schools of the country. Emphasis on commodities distinguishes the second ancestral line, of which Uriah Hunt's *Book of Commerce* (Philadelphia, 1837) is typical. About two-thirds of Hunt's book is devoted to the nature, uses, sources, and production of nearly 200 com-

modities, then follows a presentation of important facilities for carrying on trade and a sketch of the history of commerce. Information of this nature had been imparted by merchants to their apprentices during the period when England was becoming a commercial nation, and according to Daniel Defoe's statement in *The Complete English Tradesman* (1732), a knowledge of commodities was considered essential for the apprentice in a store or warehouse as well as for the boy in training for foreign trade. When the apprentice system declined, the teaching of commerce appears to have been taken over by secondary schools of some sort, probably private institutions. The appearance, at intervals, of textbooks similar to that of Uriah Hunt indicates that such teaching continued in both Britain and the United States at least into the 1870's. These books of commerce do not include maps to show the origin of the commodities discussed, and there is no attempt to explain the areal distribution of the productive industries. However, there is no indication that the content of the books was thought to belong within the field of geography. Nearly all the textbooks in commercial geography offered to secondary schools in the last three decades show their descent from the former ancestral line by adherence to the country basis for organization, while their emphasis on commodities, which have a minor place in Tilden's book, indicates their heritage from the latter line.

Commercial geography enjoys a heritage also from scientific research into the relations existing between man's work and the physical earth. From this source the subject derives the tendency which makes it strive to show an orderliness in the world distribution of commercial phenomena. Guided by this aim, commodity studies are undertaken with a dual motive, to give an orienting concept of the major currents of world trade, and to reveal the bonds which tie productive industries to particular regions. The search for underlying principles gives opportunity for the exercise of reason, and at the same time the subject accedes to the demand for human interest in geography. Like physiography, it owes much to university influence. While a considerable number of university men contributed to the development of commercial geography, university influence is typified by the inspirational teaching of J. Paul Goode at the University of Chicago and the textbook writing of J. Russell Smith. The influence of these and other university geographers has been multiplied many times, for their students have gone out to teach not only in secondary schools but also in normal schools and colleges, where they have participated in the training of teachers.

The rise of commercial geography as a secondary school subject is a logical development. The distinctive feature of our age is the commercial organization of the world's work, resulting in a complex differentiation of areas. "Company training," the modern successor of the apprenticeship system, has brought the teaching of commodities back into the actual business establishment, but the teaching of the company or corporation school is highly specialized along the lines of the individual business. It does not

attempt a comprehensive picture of the world movements of commodities or an orienting concept of the structure of the Commercial World. Such a concept is valued by business, however, as contributing to breadth of vision. The intricate web of commodity movements constitutes the framework into which an individual business must be fitted, and a reasoned knowledge of the world structure has high value as a foundation for the specialized training offered in actual business life.

The progress of geography in secondary education within the immediate future depends upon the ability of educators and leaders in geographical science to read correctly the signs of the times. Rapid and extreme changes in the industries and trade of the world perplex the builders of curricula, for they not only turn yesterday's fact into today's error but also entail confusing uncertainties as to what the new age demands of education. The business world has a way of creating agencies to serve the needs which it recognizes, but provisions for civic needs are less direct. The events of the last few years reveal the need for a sane handling of the material heritage of our nation. How shall citizens attain the necessary breadth of vision? Wise administration of our national wealth presupposes familiarity with the nature and distribution of the natural resources on which our wealth depends and with the interdependence existing between contrasted sections of our country. It presupposes also an understanding of the place which our country occupies among the nations of the world. Geography shares with history and political science the responsibility for giving the secondary school student a foundation on which to build the decisions required of a citizen in dealing with the internal affairs of the country and in helping to shape foreign policies. The schools are calling for help in giving this foundation, and the provision of subject matter suitable for their needs constitutes a present challenge to geography at the secondary level.

POLITICAL GEOGRAPHY

A Complex Aspect of Geography

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IF geography is the mother of the sciences, political geography is one of her most backward children, although by no means the youngest. Economic geography, at least, has outstripped it. To begin with, the landscape created by man's effort to make a living usually bears clear evidence of the co-operation of man with nature, the landscape created by man's effort to govern himself strikes the eye only in political capitals and along some boundaries. Moreover, financial failure shortly attends maladjustment between economic life and the environment, whereas political maladjustment may gradually increase for generations before it is rectified by law or by revolution. Hence the political pattern may fail to fit the environment, may even distort the normal geographic design. Finally, more relicts of the past remain in current political geography than in current economic geography. Correspondingly less can therefore be read from the present-day landscape and more must be reconstructed from the fragmentary records which we call history. All these facts help to explain why political geography has as yet no tested technique and no generally accepted content. The paragraphs which follow are intended as samples of subjects which seem to the writer immediately available for studies in political geography.

The political area appears to be the core of political geography. Every political unit has an areal pattern of boundaries, administrative subdivisions, capitals, and other points and zones vital to its success, if not to its existence. All these are structurally allied to the natural environment, but the degree of correspondence may be large or little. The agent by which the geopolitical structure is built up is *the law*. The operation of the law can be traced only through patient study of the incidence of individual laws. Few such studies have been made. The *force* which finds expression in the law is intangible and therefore very difficult to get at. It includes such processes as the functioning of political parties, the changing requirements of economic life, and alterations in the face of nature.

Contrasting Political Areas in the Americas

Sovereign states and their administrative subdivisions are geographic entities, no less than regions of production or trade realms. Study of political units in the light of their natural environment should therefore prove fruitful.

Why should continental North

America be integrated into two political units while Middle[1] and South America is divided among seventeen sovereign republics, not to mention four European colonies? The two areas are about equal, and they were settled from Western Europe during the same centuries. Can the difference spring from the distinction between colonies of Latin Europe and colonies of Anglo-Germanic Europe? Hardly, since French and Spanish colonization in North America failed to halt integration, and both British Honduras and British and Dutch Guiana are conspicuous examples of fragmentation. All the original European settlements, from the St. Lawrence to the Plata, and from Guatemala to Chile, were footholds at convenient harbors. A map of them would show a patchwork of Spanish, Portuguese, French, British, Dutch, and Swedish colonies, but even the settlements under a single flag were distinct units, separated from each other by wilderness. Spanish and British methods did differ. Britain governed each colony independently of the rest. Spain set up a unified administration which even went so far as to compel the trade of the Plata estuary to move to and from Europe via the high Andes and the Isthmus of Panama. From this circumstance one might conclude that *laissez faire* leads to political unity, and enforced unification to disruption. But this would be unwarranted, since the paradox is resolved by reference to the natural environment of the two contrasted areas.

The early North American settlements, although ranging from subtropical to subarctic, all lay within humid middle latitudes and none on the remote Pacific coast. As their population spread from the convenient harbors of entry, each made contact with neighbor colonies along the whole coastal lowland. Pioneers of the interior were directed transversely across the hinterland of all the Atlantic seaboard colonies by the long troughs of the Appalachian system of mountains, and by the time settlers reached the interior plains much of their provincialism had been rubbed off by mingling with people from other colonies and from Continental, as well as British Europe. In that vast ethnic mixing bowl, the Mississippi Basin, national unity has thrived. Only one serious political rift has ever divided it — the civil strife engendered by the critical temperature line which separated long summers, cotton, and slave plantations from summers too brief for cotton, and family farms. Success for the Union forces put the United States once more on the road to unification of half a continent. Not even barriers of desert and mountain ranges, more formidable than any in Europe, nor the preemption of California by Spanish colonists, could stop the rising tide of national unity which is sovereign over half the area of North America. The other half of the continent is Canada, almost uninhabited except for a fringe along the northern border of the United States. Originally settled by French and later by British colonists who had been expelled from the thirteen original United States, Canada has never joined its rebellious neighbor. Never-

1 By Middle America is meant the land between the United States and Brazil-Ecuador. In this discussion the islands of Middle America are disregarded.

theless, its territorial and administrative expansion has run parallel. The business of governing both these vast North American countries has been divided between the central authority and the component provinces. The national capitals have been less influential in this federal system than in countries where all power is centralized. Both Washington and Ottawa were designated as capitals because of their central location at the time of selection. Although both soon were left far offside, there has been no serious agitation to move either one.

In Latin America the whole geopolitical structure is different. Its west coast is almost as accessible from Europe and rather more inviting than most of its east coast. Hence settlement took root simultaneously on all sides, instead of surging in ever-growing unity across the continent. Throughout the colonial period west-coast Peru was the administrative center of the whole Spanish-American realm. Only Paraguay, originally an outlying mission and never wealthy, lacked sea frontage, until late in the nineteenth century when Bolivia lost its feeble link with the ocean. Paradoxically, the port of entry has become the seat of political power in only a few countries. It serves merely as the necessary springboard to the interior. Even in desert Peru, where the lowland climate is not unhealthful, the capital lies a few miles inland where irrigation water is available, and much of the population lives in the highlands. Farther south the coastal desert becomes inhabitable. Elsewhere within the tropics the coast is fringed with rain forest or thorn forest. Either bespeaks a hot, humid climate, enervating to European folk. On these coasts a highland base is indispensable to political power. Where none is available, the coastland is controlled from outside. The four remaining colonies of European nations fall in this group. So do the scattered settlements along the intertropical coast of Brazil and its continuation up the Amazon River — all dominated by the Highland of Southern Brazil and its extension to the coast at hilly Rio de Janeiro, just north of the tropic. With the exceptions noted the nations of low latitude America correspond to intermontane plateaus and associated mountains. The discontinuity characteristic of mountain and plateau has kept the settlements segregated throughout their history. Separatism has been intensified by the impenetrable cloud forest which fringes many mountain ranges, and on the interior lowlands by the almost equally impassable rain forest or savanna, with their perennial or seasonal conversion into vast marshes. In all the hinterland of Latin American countries few back doors are kept open, and they are little used. Only the three southernmost nations have made contact along their boundaries. South of the Tropic of Capricorn the environment resembles the United States, but with the proportions altered. The comparative narrowness of southern South America is offset by a larger ratio of desert to humid country, and the lofty Andes are unbroken by low passes except at the bleak southern end. While these obstacles, like their North American counterparts, have been hurdled, they have combined with simultaneous colonization on both Atlantic and Pacific

coasts to carry political subdivision to the tip of the continent. In the absence of a pioneering habit, the broad, marsh-bordered Paraná River, a barrier of only moderate difficulty, has sufficed to keep Argentina and Uruguay politically distinct. The failure to federate has made of every Latin American capital the economic, and the exclusive political center of its country. States which consist wholly or mainly of lowland have retained the original coast settlement as capital, now grown into a port commensurate with the productivity of its hinterland. All the others, even extra-tropical Chile, have always had their capitals inland — in nearly all cases in the fastnesses of their highland cores. No made-to-order capital exists after the manner of Washington or Ottawa, although Brazil has selected a site for one. This is appropriate enough. Brazil is about the size of the United States or Canada, lies on both sides of the Tropic, combines lowland and highland, and operates under a federal constitution.

The Boundary Zone, as Illustrated by the Rhine Basin

However different they may be, most of the states of the Americas have grown up in harmony with their natural environment, and boundaries are either unpeopled zones or antecedent lines peaceably respected when expanding settlement reaches them. In regions where the population presses more heavily upon the natural resources, especially if antecedent political boundaries turn out to be superimposed athwart natural units of trade, the boundary zone may become a theater of conflicting political aspirations. Political subdivision of these trade units produces friction and instability. Such zones are standing threats to peace. None of them is more conspicuously so than the Rhine country.

The Romans made the Rhine their military frontier, and a good one it was. A conspicuous linear feature, and a considerable barrier to military movement, it was easy to defend against the forest tribes of Central Europe. After the downfall of Rome and its legions, the whole Rhine Basin came to be occupied by folk of Germanic speech and antecedents. This manifestation of the cultural indivisibility of a river basin was never crowned by corresponding political unity. As the national states of modern times took shape the Rhine Basin remained subdivided. Holland and, much later, Belgium set up for themselves on the delta, and Switzerland in the upper valleys. France, striving to revive the Roman tradition of a Rhine boundary, came to control the upper courses of several left-bank tributary valleys, and in Alsace reached the master-stream itself. The remainder (except Luxemburg), long loosely leagued in a German confederation, was at last welded into the Prusso-German state in 1870. Through all the struggles which have left their mark on the political map of today, the Rhine has remained what it became in the early Middle Ages,—the axis of a dense population for whom it provides a major highway, one of the chief trade routes of Europe.

To protect the rights of the Rhine peoples and to minimize friction among their traders, navigation of the river is, by international agreement, open to all. This lowering of the political bars allows something like

normal interchange of products, gives land-locked Switzerland unimpeded egress to the sea, and makes it possible for Antwerp, Rotterdam, and Amsterdam, on principal deltaic distributaries, to serve as ports for the whole basin. The effort to smooth the path of trade has been intensified since the Industrial Revolution made coal and iron the cornerstones of economic society. Rich deposits of both minerals, laid down countless ages ago, happen to underlie the Rhine Basin of the present geological epoch. The iron, located in the upper waters of the river system, can readily be floated downstream to the coal fields. (Smelting is normally done near the coal mines, because until recently it has required from two to four tons of coal to smelt one ton of ore.) This happy provision of nature is partly nullified by the political line which, drawn to divide the French nationality from the German, unwittingly divided also the iron from the coal. Ever since the value of these resources came to be recognized, a struggle has been waged for their unified control. The fusion of most of Germanic Europe into a powerful national state in 1870 resulted in shifting the political boundary westward far enough to incorporate in Germany some of the iron, although the richest deposits remained on the French side. Despite the enmity which this transfer of territory stirred up, working agreements among the owners of mines and mills gradually minimized the divisive effect of the boundary. Then came the World War, which resulted in shifting the boundary eastward. Now all the iron is again in hands opposed to Germany, and from 1918 until this very moment the coal of the (German) Saar field, contiguous to the new French border, has been mined to benefit France. In the years since the war agreements have again partially stanched the economic wound caused by dislocation of the boundary. But the rising fever of nationalism increasingly threatens the precarious economic reciprocity which harmonizes with the environmental unity of the Basin.

By offering low rates on her own railways, France tries to divert traffic from the river, most of which lies in Germany, and from German rails. In the French part of the Basin,—Lorraine, Alsace, and the Saar, — railroads have captured much of the river traffic. It might be expected that Lorraine iron ore *en route* to Ruhr coal would move downstream by water. Some does, but much goes by rail. The Moselle, natural water link between this iron and this coal, is winding and shallow, but the controlling nations could improve it if they cared to. Because the Belgian customs and finance are closely linked with the French, France offers low rates on goods moving through French territory between Switzerland and Antwerp, but levies a surtax on those moving to Rotterdam. Germany has been no less selfish than France. The Dortmund-Ems Canal has been built to provide an all-German barge route from the Rhine to the sea. Low railroad rates to Bremen and Hamburg are intended to deflect Middle and Upper Rhine traffic (including that of Switzerland) to German ports and German shipping. Just recently political decree has reinforced economic pressure. The German government now requires that overseas goods intended for German consumption enter

the country through German ports, thus further crippling the transit trade of the Belgian and Dutch ports of the Rhine mouths. Doubtless the Rhine Basin will endure longer than the national states which now squabble over its resources and its trade. Meanwhile the discordance between political and economic units modifies the landscape and profoundly affects the lives of all the inhabitants.

The Capital — Core of the Political Area

Few boundary zones have generated as much friction as that of the Rhine country, but all are critical items in political geography. In quite a different sphere the capital likewise occupies an important place in every political area. In regions where nomadism prevails the capital migrates with the ruler, but among sedentary peoples some fixed point is adopted as the focus of governmental activities, whether for the whole country or for provinces within it.

The capitals of China are illustrative. Each province has its own capital, and at times many, if not all, have been independent of their neighbors. But the political center of a unified China is sure to lodge somewhere on one of the three populous lowlands which are marked by the three great rivers of the country. The basin of the Si may be ruled out as unsuitable. It is small, separated from the other lowlands by rugged hills and mountains, and no major routes link it to interior centers. Either of the interlocking basins of the Yangtse and Hwangho may furnish a site for the capital. Both are large, movement from one to the other is easy, and both connect with important inland regions

One of the historic capitals has been Nanking, just above the delta of the Yangtse, the principal navigable artery of the country. Northward, along the margin of the delta, run the ancient canal and the still more ancient road to the Hwangho lowland. Southward, through the hills, passes the most direct land route between the deltas of the Yangtse and the Si. The other historic capital is Peking, in the northern end of the Hwangho delta. From Peking routes diverge to gates in the Great Wall which mark valley routes to Manchuria and Mongolia, and thence across Asia.

Nanking, in the focal district of the main routes within China, is central with the attendant facility in administration and the tactical advantage of interior military position in case any of the peripheral provinces revolt. Peking, far offside, is nevertheless central in the district which lies on China's most insecure frontier. It is the capital of Chinese opposition to the untamed cold and dry lands to the north. In the ebb and flow of the centuries, first one of these cities has been used as political headquarters, then the other. The removal of the capital from Peking to Nanking a few years ago signallized the transfer of Chinese political preoccupation from external to internal problems.

Vistas of the Future

Political geography can find full scope for the present in a study of political areas and their boundaries, capitals, and other critical points and zones. Subsequently study of the geography of law and of the processes of government promises further extension of the geographic horizon.

GEOGRAPHY IN THE READING MUSEUM AND ART GALLERY

JOSEPHINE MOYER
READING (PENNSYLVANIA) PUBLIC MUSEUM

Miss Moyer is a graduate of the Kutztown State Teachers' College, Kutztown, Pennsylvania, and holds the degree of Bachelor of Education from Clark University. For the past six years she has been in charge of the Department of Instruction in the Public Museum and Art Gallery of Reading, which is operated by the School District, and is its department of Visual Education. Prior to that she was a teacher of Geography in one of the elementary schools of that city. She is serving this year as President of the State Council of Geography Teachers of Pennsylvania.

TRUE and lasting knowledge comes only through sensory experiences, the world is still our best teacher, yet only too often in the teaching of geography do we allow the textbook to become an insuperable barrier between the child and the outside world. If our educational principle is correct — and we grant it is — we must either take the child out into the world to get his life experiences or bring the world to him. In the teaching of Home Geography the former is easily possible, but when we speak of far-away lands and people, we must somehow manage the second alternative. At first, maps, pictures, and graphs were chief aids in bringing the outside world to the child, later we added the balopticon, the stereopticon, and the motion picture. Now, wherever possible, districts are drawing upon nearby museums to cooperate, and through their cultural exhibits, teach tolerance and an appreciative understanding of other peoples.

Reading, in Pennsylvania, is especially fortunate in this respect for it has a museum which is ideally fitted to function in this type of work. Unlike any other museum of the country, it is owned and operated by the Board of Education of Reading, an arrangement which makes possible a very close correlation between the arrangement of exhibits and the school curriculum. The museum itself is the outgrowth of a teacher's belief in the use of visual aids in education. It was built to serve the schools and not adapted to school work after years of growth along other lines of usefulness. Its entire life centers around the life of the schools, even though it contributes equally to adult education. No one can fully appreciate how closely the museum is related to the schools of Reading and how it functions in their daily work, unless they know something of its history, of the force behind its development, and the professional idealism that made it possible.

In the last decade of the 19th century a group of boys, about to be graduated from the high school, needed a course in Ancient History in order to prepare for college entrance examinations. The death of one of the faculty members left the class without an instructor, until finally Dr. Levi W. Mengel, instructor in natural sciences, offered to take the class after school hours. This arrangement was a most happy one, for, coupled with a thorough knowledge of science, Dr. Mengel possesses a rich cultural background and a real love and sympathy

for children. Early in his teaching experience he discovered that physics and chemistry were most readily taught through pupil participation and a tangible contact between pupil and subject. This principle he carried into the history class and established contact between the pupils and the ancient world through coins and other objects dating from the period of Alexander the Great through to the age of Constantine. Among the coins, there was a statute of Alexander, a Widow's Mite, numerous denarii of Julius Caesar, Augustus, Nero, and other famous Romans, and coins illustrating the various Dynasties of Egypt, Carthage, and ancient Britain. Many small objects, relics of ancient civilizations from Babylonia, ancient Egypt, Greece, and Rome, of gold, silver, and bronze; tablets of baked clay, semi-precious carved seals, rings, etc., were all used to incite an interest in the story of the ancient and dead civilizations. Interest was so stimulated by the use of these visual aids, that most of the other boys of the senior class, who were not taking history, asked permission to become regular attendants. The influences of that history class were far reaching. Those ancient coins were not only the beginning of an extremely valuable private collection, but also the beginning of a dream which finally gave to Reading a public museum and art gallery.

In the summer of 1904 Dr. Mengel visited the World's Fair in St. Louis. While there, he discovered that many museum men were obtaining promises of exhibition material for delivery at the end of the Fair. Upon reaching home Dr. Mengel spoke to the then Superintendent of Schools, Dr. Charles Foos, and sought permission to make the attempt to procure similar educational material. His thought at the time was the procuring of material that would be useful in teaching geography and general science in the High School for Boys. Permission was granted, and when the Fair closed in December, Dr. Mengel went to St. Louis to obtain the material which had been promised him by the foreign representatives and the commissioners from the various states. Alas! The removal of the material was almost impossible, for the whole exhibition had become, for all foreign material, a bonded warehouse. The only material which could be moved was that given by the various state commissioners. Dr. Mengel sought the advice and assistance of Dr. William P. Wilson and Mr. Charles R. Toothaker, Director and Curator of the Philadelphia Commercial Museum. Dr. Mengel learned that the Commercial Museum had obtained the promise of many thousands of specimens, but were short of men, so he joined their staff of workers, in consideration of which Dr. Wilson agreed to collect, box, and bring back with their own material, all that had been promised Dr. Mengel. In this way, Dr. Mengel obtained between 1700 and 2000 specimens, largely commercial, from the Latin American countries, Japan, Egypt, and Ceylon, as well as products illustrating domestic industries such as farming, forestry, mining, etc. Through the kindness of Dr. Wilson this material was held in Philadelphia until the Board of Education had some place in which to store or exhibit it.

In 1906 a new boy's high school

was completed and the third floor of the old building was set aside to house the specimens obtained at the Fair. From 1906 to 1909 Dr. Mengel spent most of his leisure hours arranging the specimens in cases built to properly display them. Each specimen was carefully labeled so as to tell the children its origin and use. Each label was hand written. Even while the collection was taking form Dr. Mengel encouraged the children of the district, under the supervision of their teachers, or individually, to come to the building and use the material in the study of geography. Neither his duties at the High School nor the labor of labeling and placing the specimens, kept him too busy to give attention to the interested child. By 1910 sets of lantern slides, complementing the museum exhibits, had been added to the already rapidly growing collection, and Dr. Mengel carried his visual education into the schools through illustrated lectures which closely correlated with the prescribed geography curriculum.

In order to give greater service to the schools, Dr. Mengel loaned his personal collection to the district. This collection, gathered during years of scientific research and travel, included specimens of natural history, the ornithology of North America, minerals, embracing the mineralogy of the world, Indian relics, and Greek, Roman, and Egyptian antiquities. Several years later this entire collection, greatly increased in size and limitless in value, was presented to the School Board by the collector, "to be held in trust forever." A teacher's gift to the youth of Reading.

In 1911 the collection, every specimen completely labeled, was formally turned over to the School Board and Dr. Mengel was made Director. The new museum now contained forty-five cases of material. Reading was the only city of its size in the United States which could boast of a museum started as an adjunct of the public school system.

Formal acceptance did not mean the end of growth, the dream was just beginning to take form — an art gallery was to be part of this school museum. In February, 1913, the first picture was purchased for the museum, and in March of the same year the Board passed a resolution to establish an art gallery. In 1914 Dr. Mengel resigned his position at the High School so that all his time could be devoted to the museum. That same year he inaugurated a program of adult education through a course of ten evening lectures on geography, natural history, and art. These lectures are becoming increasingly popular, forcing the management frequently to seek larger quarters. During the past year each lecturer spoke to an audience of 1800 or more, regardless of weather.

The museum rapidly outgrew its original quarters and demanded more suitable housing. After an intensive campaign, a loan was voted by the citizens of Reading, and in 1928 a beautiful building, situated in a park of thirty acres, was dedicated to the furtherance of education in Reading. The park surrounding the building is a laboratory for students of botany for it contains living specimens of all the wild flowers of Pennsylvania.

Just as the exhibits were gathered with the interests of the schools con-

stantly in the foreground, so the building itself was designed primarily to serve the schools. On the ground floor of the museum, with the rest of the museum's workshops, is a large children's laboratory, completely equipped to conduct classes in geography. Along the four sides of the room, in glass-covered closets, are exhibited the commercial products of the world. The room has three ten-foot tables, used as work tables or to display products needed in the progress of the lesson, and chairs enough for the average class. This is the classroom in which the exhibits of the museum floor and the art gallery are interpreted in terms of geography. Adjoining the children's laboratory is an auditorium seating 172 people where the world is brought to the child through lantern slides and motion pictures. With the completion of the new building Dr. Mengel reorganized the department of visual education so as to establish closer contact with the schools of the city. Two trained teachers were added to the staff to give instruction in geography, natural history, or art to the pupils who are brought to the museum daily by bus from the public schools of Reading.

The visits to the museum are arranged by schedule, allowing each fourth, fifth, and sixth grade teacher two scheduled visits each year. Unfortunately bus transportation facilities are too inadequate to give the primary schools the same opportunity, so grades one, two, and three are scheduled upon the request of the teacher. In order that the lesson will have practical value, the museum instructor confers with the classroom teacher and prepares a lesson which will correlate, supplement, or enrich the work of the classroom. For example, if a class visits the museum at a time when it is studying the geography of the Southern States, the museum teacher will perhaps plan a lesson on the cotton industry. The children will see a growing cotton plant, they will pick cotton from the boll, examine the fiber, gin the cotton, comb and spin the fibers into a thread by hand, and see the process of weaving. On the large tables in the children's room, placed there for their inspection, the children will find the products of the industry. They learn to know the most common kinds of cotton cloth, such as lawn, gingham, turkish toweling, cotton prints, etc. They begin to understand the interdependence of sections of the United States, and sections of the world through such products of the cotton industry as celluloid for combs and motion picture films; cotton seed oil, cotton seed cakes, and linters for mattresses. They also acquire a mental image for such words as "fiber," "cotton-gin," "ginning," "spinning," and "weaving" on which the teacher can draw to interpret like situations later in school life. To continue the building of new concepts, and to reduce the possibility of error, the children are taken to the auditorium where, through slides and motion pictures, they visit the region under discussion. They see pictures showing the labor involved from the plowing to the weaving of the cotton cloth, and in these pictures they look for indications of relief, and the climatic conditions which are needed for the industry. In this way they develop a knowledge of geographic principles as

well as an appreciation of the region's contribution to life.

The museum visits are not entirely tied up with industry and commercial products. In this age of easy communication and wide travel, we must have a tolerance for and an appreciation of other peoples and their cultures. Surely no place is quite so well fitted to teach this appreciation as the museum with its exhibits of the industrial and fine arts of all peoples. Through these exhibits and the models showing man's response to his environment, we can destroy racial hatred and develop in its stead a tolerance and a real appreciation for the cultures of others.

If a class is studying about China, they will visit first on the museum floor among the beautiful Chinese porcelains, silks, embroideries and carvings. They find that China's contribution to civilization is beautiful beyond description and they begin to wonder just what is meant by "backward" as applied to nations. In the children's room they will perhaps discuss silk, rice, or tea culture, and by means of specimens, pictures, and slides, they can be led to discover that Chinese methods of farming and manufacturing are the peoples' response to a mountainous country, and to a dense population which demand an intensive type of agriculture. After such contacts, children come away with a feeling of admiration and respect for a people capable of real endurance, and with an appreciation for a culture and an art which is different from our own.

In a similar way the children consider the Brazilian rubber collector, the North American Indian, the Bedouin of the Sahara Desert, the Japanese,—in fact, the peoples of all parts of the world. The museum does not offer a few set lessons, but each lesson is adapted to the needs of the pupil and teacher. This requires a constantly growing list of lessons offered and continual preparation on the part of the museum teachers.

Contact with the schools does not end with the museum visit. Traveling cases of the commercial products of the world, and excerpts from such magazines as the National Geographic, Journal of Geography, and Natural History are sent to the teacher on request. In this way the museum maintains, throughout the year, direct contact with the classroom teacher. Teachers are always welcome to the free use of the library.

The circle of the museum has been gradually widening until now it is no longer entirely a Reading institution, serving only local needs, but serving parochial and county needs as well. Districts enlist the services of all sorts of motor vehicles to transport classes relatively great distances. Many of the schools of Berks County and other neighboring counties consider a visit to the museum an established part of their yearly program.

The museum has just begun statistical testing in an attempt to measure the value of the museum visits, and at present the data are not sufficient to draw conclusions. But judging from booklets, letters, written reports, and projects that come to the museum instructors, the lessons furnish motivation for English, Art, History, Penmanship, and Reading as well as Geography. The teachers report an added interest in the classroom work

which is proven by the ever-increasing attendance at the museum on Sundays. The growing interest of neighboring counties and districts in the visual material offered, is also indicative of the value of the Reading Museum in public school work. The fact that teachers consider one or two hours in the museum ample compensation for 100 miles of travel to and from the institution establishes convincing proof of its worth.

There is no doubt that the immediate value of the museum visit is great, but its cultural value, growing slowly through the years, is even greater. Man's working hours have been greatly reduced, and his leisure hours proportionately increased in the national attempt to relieve unemployment. If the program of increased leisure is to succeed, our people must be trained to use that leisure time wisely. The geography and art lessons which the children find so interesting will awaken in them a love for and an interest in the museum which will carry with them always. Even now they are coming back to the museum week after week, often bringing their parents and friends with them. This interest is constantly encouraged, for surely there can be no better way to employ the leisure hours of our children, no more wholesome atmosphere than the ever-changing exhibits of the museum, and the beauty of the museum grounds.

"One man's dream, dreamed years ago and cradled in friendship, has built in the city of Reading one of the most beautiful museums in the land." That man's personality pervades every department of the museum, and makes of the museum a vital force in the life of the community.

FLOATING UNIVERSITY ROUND THE WORLD VOYAGES

JAMES E. LOUGH
PRESIDENT OF THE UNIVERSITY TRAVEL ASSOCIATION, NEW YORK

Dr. Lough received his doctor's degree at Harvard and has been connected with New York University since 1901, as professor, director of the summer session and dean of the Extra Mural Division. He has been president of the University Travel Association since 1928.

THE first sentence in Bacon's great essay on travel is, "Travel in the younger sort is a part of Education." This sentence is a fitting text for the Floating University Around the World Cruise.

The Floating University Cruise, conducted by the University Travel Association, is definitely educational in organization and purpose. The ship on which the cruise is conducted is in fact a floating campus. It provides classrooms, study halls, library, gymnasium and living quarters for faculty and students. The voyage occupies the academic year and includes visits to more than a hundred cities and places of educational interest in forty or fifty countries and colonies in Asia, Africa, and Europe.

The courses of instruction are similar to those offered at land universities and schools, but the classroom work is vitalized by study trips and

the comprehensive program of excursions included in each foreign land. The faculty consists of experienced, able deans, professors, and instructors from prominent universities.

The curriculum is, in general, limited to subjects which can be adapted to cruise conditions and studied to advantage on the voyage. Courses in Geography, History, Art, Literature, Economics and Foreign Trade, Comparative Religions, French, Government and International Relations, Sociology and other subjects are included. The study trips and land excursions provided throughout the cruise are an integral part of the academic program. They are not distractions, but rather serve to supplement the work of the classroom by providing opportunities for direct contact with the subject matter of the courses and for obtaining first-hand course material. The university lectures in turn aid students to understand and appreciate the significant features of the countries visited.

The cruise has been organized with a fourfold purpose:

1. To provide a sound and liberal education in world affairs by stimulating interest in and acquaintance with world conditions and by encouraging students to think clearly in world terms.

2. To lay a lasting foundation for international good will through a first-hand contact with the problems and peoples of other lands.

3. To give the student the inspiration and understanding which the "case" or "laboratory" method offers when applied throughout the entire academic year to supplement the systematic, accredited study of subjects by textbooks and lectures.

4. To provide the student with a background of culture through extensive travel around the world to places of greatest significance.

The Floating University Around the World Cruise had its origin in the "Travel-Study Courses" conducted by the Extra-Mural Division of New York University. These "Travel-Study Courses" were quite distinct in purpose and in method from the so-called "educational" or "student" European Tours. They brought contact with problems bearing directly on the subject matter of the courses. Systematic observations, reading, and reports, as well as the passing of the usual final examinations, were required of students seeking university credit.

Arrangements were then made for a cruise on an especially equipped steamer, under the same general plan and purpose as the European tours. University courses were offered in subjects adapted to cruise conditions, enabling the student to complete a year of academic work on the "Floating University" Cruise, as the undertaking became generally known.

On September 18, 1926, the pioneer floating university with a full quota of students (and a waiting list), and with a large administrative and teaching staff, sailed from New York City on an ocean liner especially chartered from a large trans-Atlantic steamship company by the University Travel Association. President-Emeritus Charles Franklin Thwing of Western Reserve University and Dean Lough of New York University served as Presidents on this first voyage, assisted in administrative matters by Dean George Edwin Howes of Williams College and Dean Albert

Kerr Heckel of the University of Missouri.

The students came from thirty-nine states, the District of Columbia, Hawaii, Canada, and Cuba, and represented ninety-six colleges, universities, and schools. Ninety-five courses were given. Forty-one thousand miles were covered; more than ninety ports, cities, and places of educational value in thirty-five countries were visited. The 1926-27 University Cruise was the first world cruise to visit Siam, a country now included on all world cruise itineraries. The wide travel experience combined with systematic study under a capable faculty, and the close association of students and professors from every section of the United States, was a constant challenge to think clearly in world terms and to acquire accurate information at first hand.

In practically every country visited the cruise students met local students and government and educational officials. Foreign universities were inspected, and the interest of local students in the cruise led to many unusual contacts and privileges. Official receptions to greet the University Cruise were held at nearly every port.

Since the pioneer cruise, the Association has conducted seven voyages around the world and one summer school voyage around the Mediterranean.

It would be difficult if not impossible to overestimate the educational value of one of these voyages. Throughout the entire voyage, the student is under the guidance of a professor who directs his field work ashore and meets with him for class discussions and reports when the vessel is at sea.

The educational procedure on a floating university cruise is the logical extension of the well-established field courses. It provides a splendid background of first-hand information concerning "the earth as the home of man." The new program of voyages will include every important country and city of both the northern and southern hemisphere. It seems quite probable that the expense of a year of travel and study will be little if any more than a year in an eastern college.

A SCORING PLAN FOR ELEMENTARY GEOGRAPHY TEXTS

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WESTERN RESERVE UNIVERSITY, CLEVELAND, OHIO

Professor W. M. Gregory is professor of Geography in Western Reserve University and Director of the Educational Museum of the Cleveland Public Schools. He founded and developed this school museum as a part of the public school system. The museum serves the city schools through systematic circulation of specimens, pictures, lantern slides, and moving pictures directly related to the course of study.

GENERAL STATEMENT

THE selection of texts for elementary geography is difficult for the school executive, for it requires a clear understanding of the modern content and technique of elementary geography. The executive generally delegates the text selection to a committee of experienced teachers in the belief that their judgment will enable them to choose a text that will be a guide to the pupils and an aid to the teachers.

Practical experience with committees has shown that they need guiding plans and clear directions as a basis for effective work. It is with the purpose of helping geography committees engaged in this task that the following suggestive plan is submitted. It is an attempt to provide a definite and impersonal method for text selection. If such a plan is followed in all its details, the results are a comparative rating of the various texts.

It is presupposed that the community has an established course of study in elementary geography which requires the use of a text book.

A practical working committee is about ten persons. This committee should consist of elementary school principals, teachers, experts in technique, and professional geographers.

This committee should encourage the full discussion of the various items to be scored and should agree upon the points to be allotted each before the scoring starts. The points allotted the various items below may be changed by any committee using this plan. The blank in parenthesis after each item can be used for the points assigned. It will be noted that on each of the direction sheets, the total points for each large item is divided into a number of smaller points as assigned by the committee.

When the committee is ready for its work, its members should be provided with the texts to be scored, the direction sheets, and copies of the score sheet as shown. These score sheets can be mimeographd for committee use. The writer will be glad to receive comments or to answer queries.

I. TEXTS TO BE SCORED

(The list of books selected for the.....grade.)

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II. METHOD OF SCORING

The following items are to be scored for each of the elementary texts which has been listed for the above grade. The weight and percent of each point is to be determined and assigned after a full discussion by the entire committee. The

Teaching of Geography, by the National Society of Education in the 32nd Year Book 1933, is the basis and starting point to guide the discussion of the committee and to aid in making clear the principles concerned. For an explanation of each of the following items and the distribution of its minor points which make its total score, consult the detailed sheets of direction which follow. The points assigned to various items are the maximum scores. In scoring, no book should be given the maximum number of points. The scoring is concerned with three general considerations as follows:—

	Per Cent	Points
I. Contents		
A. The Text	25 (.....)	250 (.....)
B. Organization of Material	20 (.....)	200 (.....)
C. Maps	16 (.....)	160 (.....)
D. Illustrations and Their Use	16 (.....)	160 (.....)
E. Tests and Teaching Materials	7 (.....)	70 (.....)
F. Statistics	4 (.....)	40 (.....)
G. Index and Reference	4 (.....)	40 (.....)
II. Mechanical Features		
H. Printing, Type, Size, Binding and Paper	5 (.....)	50 (.....)
III. Price	3 (.....)	30 (.....)
Total weight and highest possible score	100 (100)	1000 (1000)

III. GENERAL DIRECTIONS

In scoring, two or more members of the committee will score independently not more than two items for each book, using the *score sheets* provided for that purpose. The texts listed are to be scored for the grade indicated. The scores of the persons will be averaged and recorded as the final score of those items. No individual is to score all the items for a single book. The final average ratings for each book are assembled on a final score sheet. From the total scores the books will be ranked. These results are to be considered the final report on the scoring of geography text books.

DIRECTION SHEET FOR THE TEXT

A. *The Text* (250)

1. Clear, direct statements. (Yes, 10 points) (No, 0 points) .....
2. New terms clearly defined when first used, using units selected by committee. (Yes, 15 points) (No, 0 points) .....
3. New concepts carefully developed through use of pictures and maps, select the same unit from each text for grade scored. (Yes, 15 points) (No, 0 points) .....
4. Units increase in difficulty and deliberately build upon those that preceded. (Yes, 15 points) (No, 0 points) .....
5. Each unit has its worthwhile major understanding. (Yes, 10 points) (No, 0 points) .....
6. All materials of unit contribute to mastery of major understanding. (Yes, 10 points) (No, 0 points) .....
7. Readability. .....

   Fourth Grade

   Select two *four* B pupils at random to read aloud the first 40 lines on Switzerland in each fourth grade text scored. Obtain the reading time for each in seconds for the 40 lines and subtract this from 250. Average the two scores and record as the score for readibility for the *fourth* grade text. .....

   Fifth Grade

Select two *five* B pupils at random to read aloud the first 40 lines on the Southern States in each fifth grade text scored. Obtain the reading time for each in seconds for the 40 lines and subtract this from 250. Average the two scores and record as the score for readibility for the *fifth* grade text. .....

Sixth Grade

Follow the same scheme for *sixth* B using text on Germany. .....

Total score for each text (250) .....

DIRECTION SHEET FOR ORGANIZATION

B. *Organization of Material* (200)

General Plan

1. The organization used agrees with that advocated for the *Teaching of Geography* by the National Society of Education in the 32nd Year Book, 1933, pp. 222-224; 227-230; 234-239. (Agrees, 60 points) (Agrees in part, 30 points) (Does not agree, 0 points) .....
2. The units presented are those agreed upon for the new geography course in (.....). (All units presented, 60 points) (More than half of units presented, 30 points) (Less than half of units presented, 10 points) .....
3. The units agreed upon for the new geography course in (.....) are presented in the order to be followed in the (.....) Course. (Order agrees, 50 points) (Order agrees in more than half the cases, 30 points) (Order agrees in less than one-half, 10 points) .....
4. Specific Units

   Fourth Grade

   Units of the 4th Grade lead to initial world understanding, through study of people living at varying distances from the equator and in both northern and southern hemispheres. (Yes, 30 points) (No, 5 points)

   Fifth Grade

   Units of the 5th Grade build upon those of the 4th and lead to understanding of a country through the consideration of human use regions. (Yes, 30 points) (No, 5 points) .....

   Sixth Grade

   Units of 6th Grade build upon those of the 5th and lead to understanding of personalities of countries. (Yes, 30 points) (No, 5 points) .....

Total score for each text (200) .....

DIRECTION SHEET FOR MAPS

C. *Maps* (160)

1. World Maps
   (a) One or more full page Mercator projection. (1 point) .....
   (b) One or more full page equal area projection. (20 points) .....

   Total (21)
2. Special Maps. One point for each:
   population (.....), products (.....), natural resources (.....), winds and currents (.....), temperature (.....), rainfall (.....), transportation (.....), miscellaneous (.....).

   Total (.....) .....

Take the *total score* of the special maps as indicated above, for *each* book. Subtract the score of lowest book from highest to

find range in scores assigned. Divide range by four. Use the quotient thus found to determine quartiles for final scoring.

To illustrate: Suppose highest total score for one book is 150 and the lowest score for another book is 30.
150 minus 30 is 120, the range in scores.
120 divided by 4 is 30, the determined quartiles.
The fourth quartile is from 30 to 60 and will grade 5 points.
The third quartile is from 61 to 90 and will grade 10 points.
The second quartile is from 91 to 120 and will grade 15 points.
The first quartile is from 121 to 150 and will grade 20 points.

Total (20) .....

3. Full page physical maps using international color scheme for continents presented in text. (Yes, 20 points) .....
4. Physical relief sketch maps or two-tone maps.
   (a) Continents or globe. (Yes, 5)
   (b) Cities or regions. (Yes, 5)

   Total (10) .....
5. Full page physical-political maps for *five* continents for fifth and sixth grade text. (Yes, 10; No, 5) .....
6. Maps in or near unit material of each continent. (Yes, 10; No, 10) .....
7. Physical-political map follow international color schemes. (Do, 10 points) (Do not, 5 points) .....
8. In fourth grade text, small area map is related to landscape before it is related to large area map. (Yes, 15) .....
9. Map symbols carefully developed by use of landscape photographs. (Yes, 15 points) .....
10. Maps a part of text which, by definite reference, requires their use. (Yes, 20 points) .....

Total scores for each text (160) .....

DIRECTION SHEET FOR ILLUSTRATIONS

D. *Illustrations and their use* (160)

1. Number of approximately half-page single photographs, use pages 100 to 150 inclusive for each text. (One point for each) .....
2. Number of diagrams, graphs or charts, using pages 100 to 180 inclusive for each text. (One point for each) .....
3. Committee selects twenty consecutive pages in each book for detailed scoring. (If pages 50 to 70 are used in one fourth grade book, use same pages in each of the other texts for that grade.) (Use same plan for fifth and sixth grade texts.)
   (a) If one-half of photographs are of primary geographic quality. (*Human activity related to natural environment.*) (10 points) .....
   (b) If one-third of photographs are features of natural environment only. (3 points) .....
   (c) If one-third of photographs present cultural items only. (2 points) .....

   Total (15)
4. Are these pictures an integral part of the text, are they definitely referred to in the text so that the child *is guided in their use* and *directed* to get the geographic facts? (Yes, 10 points) .....
5. Are pictures referred to by figure or number but not used directly in the text? (Yes, 5 points) .....

6. In twenty or more consecutive pages in each book, the graph or chart, the picture, the map and the text are closely integrated and used as tools to develop the major understanding.
(Yes, 10 points) (No, 2 points) .....
Total score for each text (160) .....

DIRECTION SHEET FOR TESTS

E. *Tests and Teachers' Manual* (70)

1. Does each text have a teachers' manual?
(15 points for definite teaching directions) .....
2. Committee select same unit (.....)
or several units from each fourth grade text. The final check-up for the units may be in the form of a test, summary, or exercises. Score it as follows:—
   (a) Half of questions calling for *facts alone.* (4 points)
   (b) One-third questions calling for related facts. (6 points)
   (c) One-third of questions calling for facts of human activities related to the natural environment. (11 points)
   (d) One-third of questions making use of and testing picture reading ability. (7 points)
   (e) One-third of questions testing map reading ability. (7 points)
   Total score (35) .....

   For fifth grade select one unit or more (.....) and use scheme as indicated under 2.
   For sixth grade select one unit (.....) from a sixth grade text. Use same scheme as indicated under 2.
3. Is the final check-up objective or subjective? (Objective, 8 points) (Subjective, 2 points)
   Total (10) .....
4. Does each text have a work book for each grade?
(Yes, 10 points) .....
Total score for each text (70) .....

DIRECTION SHEET FOR STATISTICS

F. *Statistics* (*Fifth* and *Sixth* Grade Books only) (40)

1. Condensed tables of area and population by countries. (10 points) .....
2. Census for 1930. (10 points for 1930, ... older) .....
3. Tables of chief products and area, and population for different states. (5 points) .....
4. Tables of production, exports and imports of the United States and other important countries. Tables of 1920 or older not scored. (5 points) .....
5. Tables of comparative development of the United States in population, area, manufacturing, railroads. (5 points) .....
6. Tables of cities of the world and cities of the United States. (5 points) .....

Total score for each text (40) .....

DIRECTION SHEET FOR INDEX AND REFERENCES

G. *Index and references* (40)

1. Index
(Select same ten pages or more from each text)

(a) Index includes all places in portions of text selected. (5 points) .....
(b) Names pronounced in index. (5 points) .....
(c) Illustrations indexed. (5 points) .....
Total (15)

2. Cross references in index. (5 points) .....
3. Reference to maps and diagrams of the five major world products: rice (1), wheat (1), coal (1), cotton (1), iron (1) .....
4. Places coded for map location. (5 points) .....
5. Key word in bold-face type. (5 points) .....
6. References.
   (a) References—*exact* pages for pupils at end of units—Fourth Grade Books. (2 points) .....
   (b) References for pupils at end of units—Fifth Grade Books. (1 point) .....
   (c) References for pupils at end of units—Sixth Grade Books. (1 point) .....
   (d) References to *texts* published by other companies. (1 point) .....

Total (5)
Total score for each text (40) .....

DIRECTION SHEET FOR MECHANICAL FEATURES

II. Mechanical Features

H. *Printing, Type, Size, Binding and Paper* (50)

1. Type (20)
   (a) Size and clearness of type to be read without eye strain. (4 points for 12 pt.) .....
   (b) Paragraph headings. (4 points) .....
   (c) Guide topics in bold-face type. (4 points) .....
   (d) Clear type style. (4 points) .....
   (e) Type and Paragraphs well spaced. (4 points for wide lead) .....
   Total (20)

2. Paper (10)
   (a) Quality. (excellent 3) (Good .....) (Poor .....) .....
   (b) Gloss. (High .....) (Medium 2) (None 4) .....
   (c) Weight. (Heavy 3) (Medium 2) (Light .....) .....
   Total (10)

3. Binding (10)
   (a) Attractive cloth cover of durable material (4 points). .....
   (b) Wire (2 points), tape (2 points), heavy thread (1 point). .....
   (c) Heavy canvas hinge strip holding binding tape to cover (4 points). Light canvas hinge strip (1 point). .....
   Total (10)

Total score for each text (50)

I. Price (Last edition) (30)

1. Price of each text	Points
$1.00 or less	30
1.10	25
1.25	20
1.30	15
1.45 or over	10

..... Total score for each text (30) .....

FINAL SCORE SHEET

.....GRADE GEOGRAPHY TEXT BOOKS

NAME OF TEXTS	2A-Text	3B-Organization	4C-Maps	5D-Illustrations	6E-Tests	7F-Statistics	8G-Index and Ref.	9H-Printing, etc.	10-1-Price	Total Score
	.... *	....	....	....	....	....	....	....	....	
	.... *	....	....	....	....	....	....	....	....	
	.... *	....	....	....	....	....	....	....	....	
	.... *	....	....	....	....	....	....	....	....	
	.... *	....	....	....	....	....	....	....	....	
	.... *	....	....	....	....	....	....	....	....	
	.... *	....	....	....	....	....	....	....	....	
	.... *	....	....	....	....	....	....	....	....	
	.... *	....	....	....	....	....	....	....	....	
	.... *	....	....	....	....	....	....	....	....	
	.... *	....	....	....	....	....	....	....	....	

* Use these spaces for averages.

TEXTBOOKS IN GEOGRAPHY

THE following list of textbooks in geography was compiled by a committee of graduate students in Clark University in the spring of 1934. The purpose is to give a list of available textbooks in geography of somewhat recent date covering the work from the earliest year in the grades through the college and university.

The list for the elementary school is given by grades in which the texts are most commonly used.

The high-school list contains a few texts on economic and physical geography. There is a meagre supply of recent books in this field.

The college list is grouped under appropriate headings, and shows an expanding list of recent textbooks in geography for college classes.

Textbooks in Geography for the Elementary School and Junior High School

Third Grade

Knowlton: First Lessons in Geography. Macmillan Co.

Shepherd, Edith: Geography for Beginners. Rand, McNally Co.

Smith, J. Russell: Home Folks. John C. Winston Co.

Fourth Grade

Abrams, Bodley and Thurston: Peoples of Other Lands. Iroquois Publishing Co.

Atwood and Thomas: Home Life in Far Away Lands. Ginn & Co.

Barrows and Parker: Journeys in Distant Lands. Silver, Burdett and Co.

Branom and Ganey: Home Lands and Other Lands. W. H. Saddlier Co.

Carpenter, Frances: Our Neighbors Near and Far. American Book Co.

Dodge and Lackey: The World and Its People. Rand, McNally Co.

Huntington, Benson and McMurry: How Countries Differ. Part I. Macmillan Co.

Smith, J. R.: World Folks. John C. Winston Co.

Stull, DeF. and Hatch, R. W.: Journeys Through our World Today. Allyn and Bacon.

Fifth Grade

Abrams, Bodley and Thurston: North and South America. Iroquois Publishing Co.

Atwood and Thomas: The Americas. Ginn and Co.

Barrows and Parker: United States and Canada. Silver, Burdett and Co.

Branon and Ganey: Western Hemisphere. W. H. Sadlier Co.

Brigham and McFarlane: Our Home State and Continent. American Book Co.

Dodge and Lackey: Our Country and American Neighbors. Rand, McNally and Co.

Huntington, Benson and McMurry: How Countries Differ. Part II. Macmillan Co.

Smith, J. R.: American Lands and People. John C. Winston Co.

Stull, DeF. and Hatch, R. W.: Journeys Through North America. Allyn and Bacon.

McConnell: Living in the Americas. Rand, McNally & Co.

Sixth Grade

Abrams, Bodley and Thurston: The Old World Continents. Iroquois Publishing Co.

Atwood and Thomas: Nations Beyond the Seas. Ginn and Co.

Barrows and Parker: Europe and Asia. Silver, Burdett and Co.

Branom and Ganey: Eastern Hemisphere. W. H. Sadlier Co.

Brigham and McFarlane: Our Continental Neighbors. American Book Co.

Dodge and Lackey: Our Neighbors Across the Seas. Rand, McNally Co.

Huntington, Benson, and McMurry: Why Countries Differ. Part I. Macmillan Co.

Smith, J. R.: Foreign Lands and Peoples. John C. Winston Co.

Stull, DeF. and Hatch, R. W.: Europe and Europe Overseas; Asia, Latin America, United States. Allyn and Bacon.

McConnell: Living Across the Seas. Rand, McNally & Co.

Seventh Grade or Junior High School

Abrams, Bodley and Thurston: World Geography. Iroquois Pub. Co.

Atwood: The United States Among the Nations. Ginn and Co.

Atwood: World at Work. Ginn and Co.

Barrows and Parker: Southern Lands. Silver, Burdett and Co.

Branom and Ganey: Our World. W. H. Sadlier Co.

Branom and Ganey: The Earth and Mankind. W. H. Sadlier Co.

Brigham, A. P. and McFarlane, C. T.: How the World Lives and Works. American Book Co.

Huntington, Benson, and McMurry: Why Countries Differ, Part II. Macmillan Co.

Huntington and Cushing: Modern Business Geography. World Book Co.

McConnell: The United States in the Modern World. Rand, McNally and Co.

Packard, Sinnott and Overton: The Neighbors. Macmillan Co.

Packard, Sinnott and Overton: The Nations at Work. Macmillan Co.

Smith, J. R.: Our Industrial World. John C. Winston Co.

Stull and Hatch: Our World Today. Allyn and Bacon.

High School

Colby and Foster: Economic Geography for Secondary Schools. Ginn and Co.

Jones, Clarence F.: Economic Geography for High Schools (in press). Henry Holt and Co.

Smith, J. R.: Commerce and Industry. Henry Holt and Co.

Staples and York: Economic Geography. Southwestern Publishing Co. 1934.

Whitbeck: Industrial Geography. American Book Co.

Whitbeck: High School Geography.

Tarr and Von Engeln: New Physical Geography. Macmillan Co. 1926.

TEXTBOOKS FOR COLLEGE GEOGRAPHY

INTRODUCTORY COURSES

Case and Bergsmark: College Geography. John Wiley and Sons, 1932.

Huntington, C. C. and Carlson: Environmental Basis of Social Geography. Prentice-Hall Co., 1931.

Huntington and Carlson: Geographic Basis of Society. Prentice-Hall Co. 1933.

Huntington, E. and Cushing: Principles of Human Geography. John Wiley and Sons, 1934.

Huntington, E. and Williams: Business Geography. John Wiley and Sons. 1926.

Jones and Whittlesey: An Introduction to Economic Geography. University of Chicago Press. 1925.

Peattie: New College Geography. Ginn and Co. 1932.

Salisbury, Barrows and Tower: Elements of Geography. Henry Holt and Co. 1913.

Whitbeck and Thomas: The Geographic Factor. Century Co. 1932.

ECONOMIC GEOGRAPHY

Huntington, E., Williams, and Van Valkenburg: Economic and Social Geography. John Wiley and Sons. 1933.

Smith, J. R.: Industrial and Commercial Geography. Henry Holt and Co. 1927.

Whitbeck and Finch: Economic Geography. McGraw-Hill Co. 1930.

POLITICAL GEOGRAPHY

Bowman: The New World. World Book Co. 1928.

MATHEMATICAL GEOGRAPHY

Johnson: Mathematical Geography. American Book Co., 1907.

HISTORICAL GEOGRAPHY

Semple and Jones: Geographic Influences in American History. Houghton, Mifflin Co. 1933.

ANTHROPOGEOGRAPHY

Semple: Influences of Geographic Environment. Henry Holt and Co. 1911.

Semple: Geography of the Mediterranean Region. Henry Holt and Co. 1931.

PHYSIOGRAPHY

Salisbury: Physiography. Henry Holt and Co., 1919.

Tarr and Martin: College Physiography. Macmillan Co., 1920.

Fenneman: Physiography of Western United States. McGraw-Hill Co., 1931.

CLIMATE

Brooks, Charles F.: Why the Weather? Harcourt, Brace and Co.

Brooks, C. E. P.: Climate. Scribners.

Brunt, David: Meteorology. Oxford University Press, 1928.

Kendrew: Climates of the Continents. Clarendon Press.

Koeppe, C. E.: Canadian Climate. McKnight and McKnight, 1931.

Milham: Meteorology. Macmillan Co., 1929.

Miller: Climatology. Methuen and Co., London, 1931.

Piston, Donald S.: Meteorology. P. Blackinston's Sons, 1931.

Ward: Climate. G. P. Putnam and Sons, 1918.

Ward: Climates of the United States. Ginn and Co., 1925.

REGIONAL GEOGRAPHY

North America

Jones and Bryan: North America. Methuen and Co., London, 1924.

Miller and Parkins: North America. John Wiley and Sons, 1934.

Smith, J. R.: North America. Harcourt, Brace and Co., 1925.

South America

Jones: South America. Henry Holt and Co., 1930.

Whitbeck: Economic Geography of South America. McGraw-Hill Co., 1926.

Europe

Blanchard and Visher: Economic Geography of Europe. McGraw-Hill Co., 1931.

Bogardus, J. F.: Europe. Harper Bros. 1934.

Stamp, L. Dudley: British Isles. Longmans, Green & Co.

Asia

Stamp: Asia. Methuen and Co., London, 1929.

Van Valkenburg: Agricultural Regions of Asia in *Economic Geography:* July, 1931; April, 1932; January, 1933; April, 1933.

Cressey, G. B.: China's Geographic Background. Century Co.

Africa

Gregory: Africa. Rand, McNally and Co., 1928.

AUSTRALIA

Taylor: Australia. Rand, McNally and Co., 1931.

Note.—The volumes on Africa and Australia were prepared for supplementary readers, but they are valuable as beginning books in college courses.

A NOTABLE ACHIEVEMENT IN HEALTH EDUCATION*

FREDERICK RAND ROGERS
DEAN OF STUDENT HEALTH AND PHYSICAL EDUCATION
BOSTON UNIVERSITY

THE medical examination has become an accepted routine in most of the modernized schools of our country. Like unilateral lighting, fire hoses, salutes to the flag and graduation exercises, medical examinations are provided for by boards of education and superintendents of schools as a matter of course. But like these other adjustments the techniques and consequences of the examining services of physicians are sometimes given only perfunctory attention. Many "medical examinations" are mere inspections. All too often they are not "followed up"; and even when they are, the follow-up procedure is woefully inefficient. Sometimes the medical examiners themselves, aware of the futility of their work, grow careless, occasionally to the point of professional dishonesty.

This wasteful and demoralizing state of affairs is known to most school executives. It is the subject of regular comment by supervisory officers, both local and state. Now, however, we have, in *Physical Defects,* a thorough investigation of actual conditions in the nation's metropolis. The very least consequence of its publication should be a complete overhauling of medical examination and follow-up services in practically every school in the land.

This volume is essentially an *efficiency engineer's report.* It is thoroughly scientific in approach and conclusions. Therefore it is authoritative. Its revelations will startle the layman. They could be used to devastating advantage by taxpayers' leagues. But to sincere educators, interested above all in improving their own teaching or administration, *Physical Defects; The Pathway to Correction* will be welcomed as a veritable landmark in the development of school health programs.

The plan of this Report was to discover, in a city where medical examinations and follow-up services were provided, just how many defects actually existed; and then to trace school and public health procedures to discover (a) what proportion of these actual defects were found by school and public health officials, (b) whether they were corrected, and (c) if not how they were lost or neglected.

The defects investigated were of acuity of vision, dental defects, hearing defects, nutritional defects, school health influence on tonsillectomy, and the control of pediculosis. The ideal "pathway toward correction" was indicated as having five steps. Of any group of school children (1) take 100 who are properly recorded as having defects; (2) 100 will be chosen for

* This is an extended review of "Physical Defects; The Pathway to Correction," by the Research Staff of the American Child Health Association, Raymond Franzen, Director. Published by the A. C. H. A. The importance of this document fully justifies its treatment in a special article.

follow-up work after "conferences and reference"; (3) 100 will be followed up; (4) 100 will have "appointments and examination" with correctional officers; and (5) 100 will be corrected, or at least will be given every needed treatment.

Of course the ideal is never attained, and hereby hangs the tale. The investigating staff, after examining and following up the treatment of several thousands of selected groups of pupils, classified failures as of "omission" and "commission." Thus, in checking the disposition of uncorrected vision defects, of each 100 uncorrected defects the investigation showed 23 improperly recorded, 11 dropped because of conflict of opinions, 21 lost because the follow-up failed to secure appointments for examination by oculists, and 6 in which the parent is still unconvinced of any need and the school had dropped the case. These are errors of "commission" only. Errors of omission were 17 cases in which there was no knowledge of defect by any of the school health staff, 12 who had had no follow-up, and 8 where parents were convinced of need but no action was taken "due to lack of available facilities." In other words, eight per cent of the failures were excusable. It should be challenging to learn that of every 100 true vision defects in New York, only two are corrected by the provision of glasses.

How different is this approach from traditional ballyhoo in annual reports. Assuming a million school children in New York, 20% needing glasses and half of these without them, one hundred thousand children are in need. Two per cent of this number is two thousand. The usual school report would point with pride to "2000 children with visual defects whose needs have been discovered and met!" The American Child Health Association now retorts, "But you are just 2% efficient!"

Following-up 100 cases of "extreme uncorrected dental defects" the investigators found 95 properly recorded, 51 agreed upon by school health officers as needing treatment, 37 who had "contact and examination" by corrective agencies, and 2 for whom correction was in process.

Of 100 uncorrected hearing defects, 5 were in process of correction; for 100 cases of extreme nutrition defect, the percentage was 9; and for tonsillectomy, the percentage was about 38. Reasons for this astonishingly high percentage are illuminating.

Enough has been reported above to indicate the challenge which confronts every school administrator who maintains medical examination and follow-up services in his school or city. Nor can the force of the challenge be vitiated by assuming that New York is Gomorrah. On the contrary. The present reviewer was for five years Director of Health and Physical Education for New York State, and can report that conditions in New York City were above average for cities and villages of the Empire State, which has always pioneered in school health programs. Indeed, the Report reveals that New York City children with visual defects are already cared for 50% better than the average of a group of smaller cities in eastern states.

Nor should Dr. Franzen's analysis be construed as a bitter reflection on the integrity of school and public health services. Shall we "blame" the

Wright brothers for "failure to design a plane capable of carrying 150 passengers at 200 miles per hour?" Shall we "blame" the contemporaries of Lister for "failure to accept at once his antiseptic techniques in surgery?" But this latest study of the efficiency of school health services cannot be ignored with impunity by school administrators of integrity. Its lessons are too clearly drawn, too well documented, and too important to stimulate less than active concern and determination to remedy local deficiencies. Happily, the American Child Health Association staff has included excellent recommendations to eliminate the deficiencies they have at great cost and labor so well analyzed and revealed. A Summary and Conclusions chapter has been added, and valuable outlines of school health organizations and procedures in New York, methods of measurement, and various forms are included as appendices.

Fortunately, too, this study was made in a city where public school and public health departments coöperate or share responsibility for the discovery and follow-up of physical defects. If one department had been solely responsible it is certain that representatives and proponents of the other department would have made capital of the revelations of present inefficiency. This would have been grossly improper, in the writer's opinion, based on fairly wide observation. Joint responsibility is likely to be the only lasting basis on which school child health can be conserved. As civilization advances, health and education rise to paramount importance as preservers of life and happiness. Quarrels between these two arms of public service are as improper — and are likely to be as fatal — as between the two flesh-and-blood arms of an individual man or woman.

If the use of superlatives would insure a universal reading of this publication this reviewer would not hesitate to employ them. *Physical Defects* is not only a revelation to those who would promote life and education through the improvement of the very basis of both. It is not only a brilliant example of analysis by efficiency engineers. It is not only a guide to school and public health administrators in the improvement of their local services. It is more than these: in its field it is an example of coöperation almost without parallel. At a cost of $41,000 the Metropolitan Life Insurance Company financed it. A special advisory committee of twelve distinguished specialists in almost as many different fields supervised it. The New York City Health and Education Departments coöperated in securing data. The Bell Telephone Company assisted by providing Phono-audiometers and a supervisory engineer. The American Child Health Association's Research Division conducted it and analyzed the data.

From these coördinated efforts was bound to come something of interest, if the subject itself were worthy of study. Its purpose is "to help point the way to more effective health programs in the schools of our country." School boards and executives who ponder on the relative importance, to say nothing of interdependence, in human life, of reading and vision, arithmetic and hearing, social studies and nutrition, will rejoice over the powerful argument for increased appropriations which is placed in their hands by this report.

NEW EDUCATIONAL BOOKS

We acknowledge receipt of the following publications of interest to the readers of EDUCATION. Mention here does not preclude review in this or subsequent numbers of EDUCATION.

Correction

In our November number, by error we listed Kidger's **Directed Studies in American History** as published by American Book Company when it actually was published by Ginn and Company.

Business Education and the Consumer. Proceedings of the University of Chicago Conference on Business Education. 1934. Monograph 24. 116 pp. 50 cents. Southwestern Publishing Company.

Lessons in English Essentials for Junior High Schools. By *Annie Ginsberg*, Mechanic Arts High School, St. Paul, Minnesota. 220 pp., workbook. 1934. 56 cents. Longmans, Green and Company.

Famous Paintings and Their Stories. With illustrations and notes on art through the ages. By *Marie Schubert*. 1934. Grosset and Dunlap.

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